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THE

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AND

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INDEX TO ILLUSTRATIONS.

APPLES.

Carolina Red June, 19
Sweet June, 19

PEARS.

The Ontario, 372
The Des Nonnes, 373
Renovating a Pear Tree, 372

PLUMS.

McLaughlin, 43
The Fulton, 373

STRAWBERRIES.

Peabody's Seedling, 25

BUILDINGS.

Barn with Basement, 87
Barn, plan of, 183
Belmead, 89
Carman's Sheep Barn, 331
Farm House, Plan of, 152
Green-House and Vinery, 48
Mr. Johnston's Barn, 268
One Story Farm House, 117
Three Plans of Houses, 249

CATTLE.

Contrast between Good and Ill Fed, 54
Devon Cow Edith, 88
Short-Horn Cow, Bright Eyes V., 184
Short-Horn Bull Double Duke, 185
Short-Horn Bull Duke of Oxford, 217

HORSES.

Morgan Horse Paul Clifford, 345
Original Justin Morgan, 24

GOAT.

Female Cashmere, 21

POULTRY.

Dorkings, 14
Leghorn Fowls, 150
Spanish Fowls, 51
Shanghæs, 269
Turkey, 57
White Chinese Goose, 89

PLANTS.

Cranberry, 83
The Chrysanthemum, 153
The Calceolaria, 374

SHEEP.

Southdown Ram Frank, 344

MACHINES AND IMPLEMENTS.

Boiler for Warming Houses, &c., 47
Circular Saw Mill, 49
Emery's Drag Cross Cut Saw Mill, 22
Excelsior Farm Mill, 44
Excelsior Fanning Mill, 262
Evan's Rotary Terracultor, 216
Frisbee's Windmill, 166
Hammon's Seed Planter, 159
Horse Power, Emery's, 34
Mowing Machine, Allen's, 229
Perkins' Corn Husker, 341
Plows—Improved Clipper, 280
  Double Shovel, 280
  Two-Horse Sod Breaker, 280
  Full Rigged Prairie, 280
Root Cutter,—Nourse & Mason's, 90
  Willard's, 377
Rotary Force and Lift Pump, 39
Seed Planter, home made, 193
Steam Engine, Portable, Wood & Co.'s, 37
  Portable, Harlan & Hollingsworth's, 56
Sugar Cane Hand Mill, 337
Tile Machine, 147
Wakefield's Corn Planter, 159

MISCELLANEOUS.

Apparatus to Prevent Cows Sucking Themselves, 172
Brush Drains, 149
Cattle Stalls, 267
Draining, 212, 213
Dynamometers, 253
Fastenings of Lightning Rods, 300
Feeding-box for Sheep, 267
Mice-gnawed Trees, 120
Mutilated Evergreens, 206
Portrait of Washington, 281
Protector for Vines, 188
Self-adjusting Door Hanger, 312
Sewing Machine, 349
Street Trees, 279
Transportation Protector, 188
United States Ag. Society's Medal, 248
Vault for Night-soil, 215
Water Wheel, 87
Winegar's Water Elevator, 173

6250

INDEX TO VOL. V......1857.

(THIRD SERIES.)

- Acres, Fractions of for Experiments, 120
- A Day's Notes near Geneva, 257, 265
- Address of Edward Everett at Buffalo, 349
- Advice in Farming, 107
- Agricultural Furnace, Mott's, 254
  - Fairs, Abuses of, 331
    - their Aims and Objects, 73
  - Library, 303
  - Papers, Value of, 111, 155
  - Statistics of New-York, 363
- Agriculture and other Pursuits, 187
  - of New Jersey, 203
- Agents and Friends, Appeal to, 329
- American Institute, 291
  - Butter-worker, 308
  - Plants, Books on, 156
- Ammonia, to Develop Flowers, 239
- Ammoniacal Liquor of Gas Works, 223
- Albany County, Notes in, 309
  - Ag. Society, 65
  - Fair of do., 320
- ANIMALS—Dysentery in, 56
  - Cruelty to, 158
  - Extensive Importation of, 223
  - Importations of, 31, 290
  - Lice on, Remedies for, 177, 254
  - Purely bred, 23
  - Sometimes get too much Salt, 224
  - Value of Different Kinds of Food for, 221
  - Warts on, Cures for, 218, 247
- APPLES—Best Autumn Sweet, 74
  - Best for the West, 151
  - Black Rot in, 254
  - Carolina Red June, 19
  - Early-bearing Varieties, 215
  - for Stock, 308
  - Green and Yellow Newtown Pippins, 90
  - in Nine Months from Seed, 92
  - Lime for Preserving, 287
  - Salt Barrels for Preserving, 204
  - Sweet June, 19
  - Treatment of Dried, 144
  - Water, 223
  - Western, 19
- Apple Seed, Time to Plant, 66
  - Trees, Borer in, 151, 218, 274, 351
    - Disease in Bark of, 319
    - Diseased, 273
    - Injured by Winter, 366
    - Paradise and Doucain Stocks, 319
    - Productive, 156
- Artificial Stone for Building, 109, 191, 192, 339
- Ashes and Plaster, 229
  - from Tan, 162
  - Leached, 45, 213
    - Value of for Grain Crops, 110
    - Use of on Long Island, 142
- A Sight worth Seeing, 290
- Another Sight worth Seeing, 221
- Augusta Co. (Va.) Ag. Society, 90
- Axioms in Agriculture, 367
- Bainbridge Town Ag. Society, 93
- Barberry as a Hedge Plant, 32
- Barley, Culture of in Jefferson Co., 119
  - Good Crops of, 26, 63
- Barn and Cow-House, 304
  - for a 150-Acre Farm, 183
  - Mr. Johnston's, 268
  - Plan of with Basement, 87
  - Wm. Carman's Sheep, 331
- Beans as a Fallow Crop, 216
  - Culture of, 207
  - Grown for Feed, 222
  - White Cranberry, 95
- Bark Louse, Remedy for, 47
- Bee House, Position of, 284
- Bees, Books on, 287, 302
  - Houses not necessary for, 20, 128
  - Management of in Houses, 63
  - Quinby's Mode of Keeping, 52, 128
- Beet Root, Distillation of, 126
- Belmead, 89
- Bermuda Grass, 381
- Blackberry Bushes, to Destroy, 350
  - Newman's Thornless, 356
- Blackberries, Hardiness of, 238
  - How to Propagate, 378
- Bog Lime or Marl, 286
- Boiler for Warming Houses, &c., 47
  - for Steaming Roots, &c., 310
  - Mott's Agricultural, 254
- Bone Dust, 45
  - for Cattle, 288
- Bone Mills, Cost of, 154
- Bones as a Fertilizer, 221
  - Dissolved by Fermentation, 234
  - How to Use, 123, 286
- BOOKS — Annual Register for 1858, 281, 330, 354
  - Artificial propagation of Fish, 227
  - Downing's Fruit and Fruit Trees, 343
  - Devon-Herd Book, Vol. 3, 31, 196
  - Essay on Calcareous Manures, 33
  - Eastwood's Cranberry Culture, 154
  - Farmer's Encyclopedia, 67
  - Farmer's Guide, 194
  - Fourth Report on Massachusetts Agriculture, 229
  - Gray's Introduction to Botany, 156
    - Manual of Botany, 156
  - Geological Survey of New-Jersey, 303
  - Hyde's Chinese Sugar Cane, 68
  - How to Get a Patent, 291
  - Insects, Dr. Fitch on, 27, 126
  - Morgan Horses, by Linsley, 24
  - Olcott's Sorgho and Imphee, 322
  - on Bees, 287, 302
  - on Poultry and Bees, 33
  - Poulterer's Companion, 27
  - Patent Office Report for 1855, 30
    - for 1856, 355
  - Porter's Principles of Chemistry, 50
  - Rural Affairs, 330
  - Report of Virginia State Ag. Society, 24
    - of Ohio Board of Agriculture, 194
  - Short-Horn Herd Book, 31, 126, 226, 249
  - Transactions N. Y. State Ag. Society, 27
    - of Conn. State Ag. Society, 228
- Breeding, a Fact in Regard to, 55
  - For Particular Climates, 75
  - Remarks on, 23, 30
- Brakes, to Destroy, 319
- Brickmaking, 67
- Bucks County Ag. Society, 189
- Buckthorn, to Raise from Seed, 155
- Buckwheat, should be Beechwheat, 158
- BUTTER — Fine Specimens of Winter, 93
  - Making, 219
  - Per Cow, 127
  - Results of Experiments, 272
  - To Prevent Turnipy Taste in, 224
- Butter Worker, American, 308
  - Price's, 279,357
- BUILDINGS — Artificial Stone for, 109, 191, 192, 339
  - Barn and Cow-house, 304
    - Wm. Carman's Sheep, 331
    - For 150 Acre Farm, 183
    - Mr. Johnston's, 268
    - Plan of with Basement, 87
  - Farm House, Design for, 152
  - Importance of Good, 54
  - One Story Farm House, Design for, 117
  - Three Plans of Houses, 249
- CABBAGE—Culture of, 64, 79, 247
  - Great Crop of, 291
  - Plants, Protection of, 161
    - To Destroy Lice on, 308
- California Fruit, 258
  - Large Trees of, 381
  - Products of, 29
- Calceolaria, 374
- Canada, Crops, &c. in, 371
- Care of Tools, 257
- Carrots, Feeding and Culture of, 113
  - Good Crops of, 26
  - Injury to, 318
  - Seed, How to Clean, 33
- Cats, How to Select Good Mousers, 146
- CATTLE—Ayrshire, Origin of, 31
    - Mr. Gray's Sale of, 196
  - Alderneys, Mr. Sheldon's, 257
  - An Ox Saved, 69
  - Best for Slaughtering, 49
  - Best Breeds of, 85, 150
  - Bloody Murrain in, 370
  - Bone-dust for, 288
  - Covered Yards for, 86
  - Calves, Feeding and Weaning, 184, 342
    - Large, 381
    - Disease and Death among, 207, 255
    - Singular Disease in, 114
  - Canada, 355
  - Cows, Good, 127
    - To Prevent Kicking, 127
    - Prolapsus Uteri in, 128, 141
    - To Prevent, Sucking themselves, 172, 190, 285
    - Drying Off, 207
    - Caked Udder in, Cure for, 207
    - Remedy for Bad Milk in, 210
    - Prolific, 223
    - How to Milk Clean, 288
    - Milk Yard for, 278
    - Feeding, and the Production of Milk, 244
    - Winter Feed for, 362
  - Devons, Mr. Wainwright's, 194, 258
    - Cow Edith, 88
    - Sales of, 126, 158
  - Extensive Importation of, 223
  - Feeding for Beef, 267
  - Foot Evil, Cure for, 61
  - Fat Steers, 92
  - Fine Fat, 189
  - Grazing and Feeding, 298
  - Herefords, Value of, 220
  - Horn-Ail, Cure for, 140
  - Hoven in, Remedy for, 177
  - Heifers, Fat, 240
  - Improved Breeds and High Prices of, 239
  - International Show of at Poissy, 194, 226
  - Kyloe, 381
  - Lopped Horns, Remedy for, 378
  - Lice on, to Destroy, 80, 177, 190, 333
  - Merits of Different Breeds, 75
  - Murrain in, in Europe, 194, 266

Cattle, Milk Sickness in, 321
  Mr. Conger's, 381
  Mr. Calvert's, 305
  Oxen, Cost of Keeping, 116
    and Horses, Speed of, 228
  Preventions against Diseases, 340
  Short-Horns for California, 129
    as Milkers, 258
    Bull Double Duke, 185
      Duke of Oxford, 217
      Grand Duke, 221
    Cow Bright Eyes V., 184
    Col. Morris' Sale of to Mr. Thorne, 129, 157
    Importation of, 196
      by T. Betts & Co., 322
      by F. W. Stone, 92
    Mr. Sheldon's, 257
    Sales of, 31, 69, 126, 157, 158, 195, 227
      in England, 228
      in Scotland, 229
      of Mr. Alexander's, 225
      of Mr. Stone's, 320, 332
      of Mr. Warfield's, 29
      of Mr. Wade's, 322
  Salt, Sulphur and Bones for, 210
  Seed Ticks on, 272
  Soiling, 271, 278
  Sulphur for, 124, 174, 210
  Warts on, Cures for, 191, 218, 247, 379
  Wintering, 205, 362
  Winter Management of, 55
Cattle Shows, their Aims and Objects, 73
    Abuses of, 331
Cedar, Red, to Grow from Seed, 96
Celery, Manure for, 255
Cement for Underdraining, 66
  For Water Troughs, 106
Chatauque County Ag. Society, 78
Cherry Trees, Black Wart on, 285
    Effect of Winter on, 301
    Slug on, 179
Chess Question, 189, 228, 259, 289, 340
Chestnuts, Spanish, 66
Chimneys, Smoky, 96
Chicago, its Growth and Prospects, 250
Chinese Sugar Cane in High Latitudes, 310, 316
  for Milch Cows, 365
  Notes About, 32, 43, 78, 321, 323, 366, 380
  Mills for Grinding, 84, 337, 353
  Syrup from, 12, 337, 347, 364
  Seed of Necessary for an Acre, 155
Chinese Yam—see Dioscorea Batatas.
Chinese Chrysanthemums, 153
Chufas, Experiments with, 16, 30
    Value of, 95, 351, 369
Churning by Water Power, 223
Cisterns, Cement, 94
Cider Mills, 286
Clinton County Ag. Society, 87
Clover Seed from Sandwich Islands, 126
    Harvester, 319
    Cleaner, 122, 186
  and Other Grasses for Hay, 233
  Hay, How to Cure, 235
    For Sheep, 306
    Value of, 260
Coal Tar as a Paint, 66
    Uses of, 286
Coal Ashes as a Fertilizer, 121
Cob Meal, Value of, 213
Connecticut State Ag. Society, 65
    Fair of, 356
Colza, Experiments with, 177
Composts, 64, 236
Cooked and Uncooked Food for Swine, 277
Corn Husker, Holmes', 355
    Perkins', 341
  Planter, Billings', 258
    Brown's, 281
    Wakefield's, 159
Country Gentleman at the West, 291
    Circulation of, 291
    Value of, 138, 190, 356
Cranberries, Culture of, 47, 154, 206, 334
  as an Ornamental Plant, 83
  To Raise from Seed, 247
Crops in Western New-York, 257
  of 1856, 355
Cucumbers, Culture of, 339
  for Cattle, 357
Cultivator, The, 24th Year of, 9
  Circulation of, 291
  January Premiums for, 230
  Premiums awarded for 1857, 157
  Value of, 69, 92, 111
Currants, Cherry, 13
  from Seed, 122
  Insects on, 274
  White Grape, 13
Curculio, Experimenters with, 206
Cutting Hay, &c., 306, 368, 375, 376
  Mathews on, 223
Dairy, Management of, 219
  Business in Vermont, 69
  Production of Milk for, 244
Death of Roswell L. Colt, 30
  of Henry J. Canfield, 69
Delaware County, Farming in, 69
Dew, Culture while on, 95
Ditch Digger, Pratt's, 79
Dioscorea Batatas, Experiments with, 16, 30, 53, 93, 126, 288, 377
Dogs, Bull Terrier, 124, 154
  Tan and Scotch Terriers, 94
Door Hanger, Morse's Self-Adjusting, 312
Dourah Corn, Experiment with, 12
DOMESTIC ECONOMY:
  Alum in Candle-Making, 48
  Beef and Hams, to Cure, 61
  Black Varnish for Leather, 214
  Beds of Birch Splinters or Shavings, 222
  Burning Fluid, 214
  Candles, Hardening Tallow for, 21, 91, 214, 374
  Cookies and Gingerbread, 28
  Currant Wine, Recipe for, 112
  Cracker Pie, 170
  Curry Powder and Extract of Celery, 214
  Carrot Pie, 214
  Cider Champagne Wine, &c., 343, 372
  Cider, To Keep Sweet, 319, 339, 372
  Corn Husks for Beds, 366
  Extract of Rennett, 214
  Fruits, How to Protect Dry, 50
  Felon, Cure for, 112
  Fleas, To Destroy, 319, 351, 378
  Gold and Silver Cake, 21
  Hams kept in Charcoal, 95
    How to Cure, 61
  Hard Soap, Recipes for, 180, 214
  Indelible Ink, Recipe for, 112
  Inflammatory Rheumatism, Cures for, 112, 180
  Kentucky Bacon, how Cured, 89
  Lard Candles, Recipe for, 372
  Measure Cake, 21
  Mock Sponge Cake, 28
  More about Candle-Making, 224
  Ohio Cup Cake, 83
  Pomatum, Recipe for, 112
  Rats and Mice, To Keep from Dwellings, 91, 371
    Poison for, 95
    Trapping, 172
    To Destroy, 222
  Sausages, Recipe for, 61
  Soft Soap, Rules for Making, 127
  Sweet Corn, To Cook, 247
  Ten Recipes for Puddings, Cakes, &c., 112
  Tripe, How to Prepare, 375
  Turkey, How to Boil, 179
  Vinegar, How to Make, 323
  Washing Fluid, &c., 124, 192, 255
  Warts, Remedy for, 191
  Waterproof for Boots and Shoes, 214
Dourah Corn, 12
Drains, Outlets for, 319
Drill Sowing vs. Broadcast, 147, 170, 204, 207
Draining, Cheap Way of, 82
  Cost of, &c., 113
  Effects of, 15
  Foundation of Good Farming, 182
  Horse-Shoe and Sole Tiles for 338
  in New-England, 95
  Maryland, Plan of, 212
  Orchards, 379
  With Brush, 149, 173
  With Stone, 46, 114, 180, 209
  With Stone and Tile, 333
  With Tile, 341
  With Wood, 191, 305
Drill, Seed, Rockford's, 281
Dynamometers, 253
  Trial of at Syracuse, 290
Elder Bushes, to Destroy, 255
Eggs, Transportation of, 66
English Ag. Society, Show of, 289
Entomology, 77, 138, 245, 273
Evans' Rotary Terracultor, 216, 258
Evergreens, Remedy for Mutilated, 206
  Transplanting, 121, 179
  Works on, 154
Excelsior Farm Mill, 44, 342
Exhaustion of Soils, 181, 191
Experimental Farm Wanted, 118
Experiments Proposed, 157
Fairs, State and County, 281
Fanning Mill, Nutting's New, 324
Farm Mill, Excelsior, 44, 342
Farm, Experimental Wanted, 118
  A Princely Prairie, 309
  Benjamin Warfield & Sons', 12
  Charles B. Calvert's, 303
  Capt. Hilton's, 309
  Doct. E. Warfield's, 12
  Geo. Edwards' and others, 299
  Hon. A. B. Dickinson's, 282, 297
  How to Manage a 50 Acre, 208
  John Johnston's, 265, 318
  John Edginton's, 305
  Rev. Dr. Breckinridge's, 11
  R. L. Swan and H. T. E. Foster's 290
Farmers, Six Rules for, 268
Farming, a few Facts about, 84
  Advice in, 107
  Higher required, 145
  in Delaware County, 69
  in Litchfield Co., Conn., 174
  in New-Hampshire, 348
  My Mode of, 271
  on the Prairies, 48, 62, 256, 275, 305
  on Shares, 260
  Profits of, 68, 84, 187, 275
  Scientific, 123
Fayette Co., Ky., a Day in, 11
Feeding as a Source of Manure, 145, 159, 160, 267
Female Equestrianism, 30, 54
Fever and Ague Prevented by Plants, 194
Fences, Board, How to Build, 159
  Hedges for, 108, 123, 275, 338
  Wire, 275, 305
Fire Blight on Fruit Trees, 211
Fish, Carp and Tench, 94
Food, Cooked or Uncooked for Feeding, 146, 277
  Value of Different Kinds of for Stock, 221
Fruit, Kiln for Drying, 139
  in Western Michigan, 159
  Overhanging, 238, 302
  Variety in, 323
Fruits for Severe Climates, 301
  Southern, 238
  for Wisconsin, 90
Fruit Growers' Association of Western New-York:
  Autumn Exhibition of, 324
  Winter Exhibition of, 57
Fruit Trees, Borers in, 338
    Care of, 248
    Earthing up, 148
    Good and Bad Cultivation of, 141
    Mulching in Winter, 369
    Planting and Hoeing, 211
    Remedy for Unfruitful, 302

Fruit Trees, Regrafting old, 86
  Remedy for Mice-Girdled, 120, 149, 155
  To Destroy Caterpillars on, 179
  To Protect from Mice, 179, 259
  Winter Management of, 58
Fruit Culture, Works on, 225
Furnaces, Mott's Agricultural, 33
Garbinzos, 287, 318
Garden for a Farmer, 218
  Profits of a Half Acre, 362
Gas Lime as a Fertilizer, 33
Gas Works, Ammonial Liquor of, 223, 378, 379
Gate, Sherwood's Self-Acting, 321
Glass Labels, 238
  Solubility of in Water, 310
Goat, Female Cashmere, 21
Good and Bad Management, 54
Gooseberries, Mildew on 109, 124
Grafts, Best Time to Cut, 19
Grain, Marketing, 59
  Stacking, 243
  Weights of per Bushel, 196
Grape, the Concord, 26, 49, 90, 374
  Canadian Chief, 374
  Cassidy, 374
  Diana, 374
  Delaware 354, 356, 374
  Garrigues, 374
  Louisa, 374
  Northern Muscadine, 29
  Rebecca, 354, 356
  Winslow's, 380
Grape-vine Protector, 32
  Productive, 355
  Immense, 239
Grape-vines, Borders for, 91, 176
  Cuttings, How to Plant, 351
  Grafting, 366
  In Houses, 238
  Pruning Large, 155
Grass Seed, Raising, 91
  for Lawns, 286
  Time to Sow, 66, 351
  Vitality of, 81
  Bermuda, 381
Grass Lands, Culture of, 282
  Management of, 283
  Seeding, 191
Grasses on the Prairies, 306
Grasshoppers in Minnesota, 245, 253
Green-house and Vinery, 48
Ground Cherry, Culture of, 15
Guano, Baker's Island, 254
  How to Pronounce, 94
  Imported into England, 225
  Experiments with, 110
  for Indian Corn, 145
  for Oats, 161
  Columbian and Peruvian, 305
Hay Crops, Large, 56, 282
Hay, Steaming, 190
  Timothy, Value of, 122
  To Measure in Bulk, 214
  How to Cure, 233
  Clover and other Grasses for, 233
  Stacking, 243
  Clover for Sheep, 306
    How to Cure, 235
    Value of, 260
  Salting, Two Dangers attending it, 243
  Cutting for Stock, 306, 368, 375, 376
  Unloading by Horse Power, 358
  Caps, Cheap and Durable, 254, [illegible]
    How Made, 323, [illegible]
Hedges, Thorn for, 108
  Osage Orange, 123, 275, 338
Herbarium, Valuable, 126
Herkimer County Fair, 355
Hickory Tree, Grafting or Budding, 94
Highland Ag. Society Show, 321
Hints for the Year, 54
Hop-vines, Remedy for Worms on, 341
Hop Tree, 380
Horse-racing at Ag. Fairs, 26, 59, 73
Horse-race from Alb'y to Whitesboro, 158
Horse-shoe machine, 27
HORSES—American vs. English, 193
  Arabian in Kentucky, 291
  Black Hawk, Death of, 31
    Skeleton of, 126
  Bots in Killed by Strong Coffee, 67
  Black Hawk Colt in Massachusetts, 157
  Blinds for, 192, 255
  Blood Spavin, Cure for, 244
  Colt from a Mule, 44
  Curb in, 67
  Cost of Keeping, 116
  Colt, legs of, affected, 124
  Colts, Large, 227, 244
  Cure for Colic in, 317
  Distemper in, 18
  Economical Modes of Feeding, 60
  Ethan Allen and Sherman Black Hawk, 122, 124, 255
  Heaves in, 18, 272
  Henry Clay, 372
  Market at Munich, 178
  and Oxen, Speed of, 228
  How to Make Draw, 274
  Membrino Chief, Sale of, 331
  Morgan Paul Clifford, 345
  Original Justin Morgan, 24
  Poll Evil, Cure for, 342
  Ring Bone, Cure for, 276
  Sale of Blood, 33
  Sweney in, Cures for, 185, 255, 285, 335
    Correction in, 381
    Its Cause and Cure, 317
  Scratches, Cure for, 223, 335
  Seed-ticks on, 272
  Show at Springfield, 290, 342
  To Prevent Throwing their Tails over the Reins, 379
  Too Well Fed, 55
  Warts on, Cure for, 218
  Wintering, 205
  Wolf Teeth in, 33, 54, 55, 185, 220, 223, 243, 279
  Worms in, Cure for, 141
Horticulture, Works on, 222
Hot-bed and Garden Pits, 83
Hot and Grape Houses, 303
Houses, Artificial Stone for, 109, 191, 192, 339
House, Design for, 152
  One-story Farm, 117
  Three Plans for, 249
Hungarian Grass, 381
Hydrangeas, How to have Blue, 308
Ice House in Cellar, 117
  in Out-house, 316
  How to Build, 323
Illinois, Crops in and Growth of, 193
  State Fair, 134
  Wheat Crop in, 161, 193
INDIAN CORN—After Buckwheat, 109
  Culture of, 266
    for Fodder, 81, 223
  Fodder, How to Cure, 342
  Good Crops of, 63, 65, 92
  Guano for, 145
  King Philip, 29
  Mexican, 29
  Number of Stalks to a Hill, 270
  Selecting Seed, 22, 317
  Starch from, 78
  To Prevent Crows from Pulling, 154
  Topping and Harvesting, 299
  Why Seed does not Grow, 236
Indian Millet or Dourah Corn, 12
Information Needed, 31
INSECTS—Apple Borer, 151, 218, 274
  Bark Louse, 47
  Beetles and Worms in Potato Vines, 273
  Cherry Slug, 179
  Destructive Apple, 10
  Grasshoppers, 245, 253
  Gooseberry, 273
  Imbedded in Wood, 138
  Hunter Weevil in Corn, 273
  on the Currant, 274
INSECTS—Prickly Septostylus, 77
  Pea Weevil, 142
  Striped Bug, 227
  Worms in Bark of Apple Trees, 77
Iowa, Crops, Prices, &c. in, 60
Irrigating Meadows, 148, 283
Irrigation, Water for Raised by Wind-Mill, 289
Jack, a Valuable one, 204
Kentucky Bacon, How Cured, 89
  Farms and Stock of, 11
  Harvester, 290, 291
Kiln for Drying Fruit, 139
Kohl Rabi, 95
Labels, Glass, 238
  Tin, 254
Labor-saving Machines, 322
Lands, Tresspassers on, 192
Larch, &c., Time to Prune, 319
Lawns, Grasses for, 286
Laziness, Bodily and Mental, 42
Lewis Co. Ag. Society, 65
Lightning Rods, Construction of, 225, 240
    How to Fasten up, 300
Lima Beans, 156
Lime Brick, Foster's, 44
Lime for Preserving Apples, 287
  for Composts, 365
  on Grass Lands, 90
  Use of on Limestone Soils, 44, 48
Litchfield Co., Ct., Farming in, 174
Llamas, Importation of, 380
Locust, To Raise from Seed, 121
Locusts, Great Cloud of, 26
Machines, Labor-saving, 322
Madison Co. Ag. Society, 165, 337
MANURES—Artificial, How to Apply, 18
  Ashes and Bone Dust, 45
    Leached, 45, 213
    from Tan, 162
    Value of for Grain Crops, 110
    Use of on Long Island, 142
  Application of Barn-Yard, 15, 18, 140
  Best for Roses, 120
  Bones as a Fertilizer, 123, 221
    Dissolved by fermentation, 234
    How to Use, 123, 286
  Bone Dust, 45
  Cattle, Management of, 45
  Cellars for, 94
  Composts, 64, 236
  Coal Ashes for, 121
  Cost of in England, 356
  Dr. Voelcker's Investigations about, 201
  Experiments with, 17, 312
    with Guano and Stable, 110
  for the Osier Willow, 94
  Feeding Sheep for, 160, 181
  for Grass Lands, 283
  for the Prairies, 305, 322
  Gas Lime as a Fertilizer, 33
  Gas Works, Ammoniacal Liquor of, 223
  Guano for Corn, 145
    Baker's Island, 254
    for Oats, 161
    Columbian and Peruvian, 305
    Importation of into England, 225
  Horse, 28
  Hen, How to Apply, 91, 140
    Use of on Corn, 117
    and Guano for Corn, 205, 208
  How to Make, 111
  Home-made, 121
  How to Increase, 278, 335
  Lime as a Fertilizer, 32
    on Grass Lands, 90
    Use of on Limestone Soils, 44, 88
  Liquid, How to Use, 119
    How to Save, 114
  Leaves for, 336
  Mistaken Reasoning about, 10
  Management of Barn-Yard, 58, 144, 186, 310
  Muriate of Lime, 127
  Mixing Lime with, 207
  Muck, Peat, &c., 241

MANURES — Nitrate of Soda on Wheat, 17
New-Jersey Marls and Cancerine, 203
Night Soil, Management of, 215
Its Preparation and Use, 352
One Advantage of Rotten, 180
Oyster Shells as a Fertilizer, 122
Proper Application of, 111, 183
Pits or Cellars for, 169
Plaster, 123, 129, 148
Quantity and Value of Cattle, 105, 234
Remarks on, 175, 209
Superphosphate of Lime, 17
Straw and Muck for Composting, 32
Saw-dust and Shavings for, 155, 220
Theory of the Application of, 41, 144
of Management and Application, 137
Trials of Suggested, 228
Value of Poultry, 195
Maple Sugar, 222
Marl or Bog Lime, 286
Massachusetts State Fair, 158
Meadows, Improving Old, 111, 125
Irrigating, 148, 283
Management of, 282
Melon Bugs, To Keep from Plants, 188
Melons and Cucumbers, How to Raise, 339
Orange and Christina, 21
Winter, 357
Mice, Repulsion of from Fields, 61
Banking-up Successful against, 259
Michigan Ag. College, 92, 112
Milk-House, Description of, 176
Millet, Culture of, 172, 322, 338, 356
for Fodder, 172
How to Cure, 124
Mistaken Reasoning, 10
Mouse Hunt, 14
Mowers—On the Use of, 45
Trial of at Skaneateles, 158
at Syracuse, 271
Mulching Fruit Trees, 369
Munich Horse Market, 178
New-Hampshire, Farming in, 348
State Fair, 352
New-Jersey, Agriculture of, 203
New-York State Ag. College, 69
Trustees of, 158
New-York State Ag. Society:
Fair of at Buffalo, 344
Ground for Fair of, 193
Officers of, 93
Treasurer's Report, 93
Winter Meeting 93
Receipts at Fairs of, 380
New-York State Poultry Society, 94
Night Soil, Management of, 215
Its Preparation and Value, 352
North-Western Fruit-Growers' Association, 158
Notes about the West, 250, 256, 275, 280, 305
in Steuben County, 282, 297
of a Travelling Farmer, 315
Oats, Poland and Imperial, 117
White Poland, 350
Value of Black, 286
Ohio State Board of Agriculture, 65
State Fair, 333
Oil-producing Seeds and Plants, 22
Onions, Culture of, 64, 330, 370
Failure to Bottom, 357
Smut on, 236
Top, Culture of, 255, 273, 285
Onondaga County, Notes from, 26
Orange tree, 400 years old, 238
Orchards, Aspects of, 318
and Fruit Gardens, 303
Cultivating Hill side, 74
Good and bad cultivation of, 141
on Steep Hill-sides, 143
Prairie, 162
Young Trees in Old, 191
Orchard Grass, 123
Oregon, Letter from, 189
Fruits and Vegetables of, 127
Ornamental Shrubs, 334
Orwell (Vt.) Farmers' Club, 355
Osage Orange for Hedges, 123, 275, 338
to Raise from Seed, 124
Oxen, Large Team of, 366
Oyster Shells as a fertilizer, 122
Paints, Cheap for fence, &c., 43, 117
Pastures, Renovating Old, 107
Shade Trees in, 195, 321
Patent Office, Seeds from, 222, 229
Trials of Seeds from, 29
Pea, Japan, 29
Product of One, 381
Peas, Weevil in, 142
Peaches, Clingstone, 86
Seedling, 351
Peach Trees, Death of Transplanted, 254
Gum on, 15
Productive, 234
Peach Stones, how to Plant, 350, 366
Pea Nuts, Culture of, 218, 254
Pear, Seckel, 255
Ontario, 372
Des Nonnes, 373
Pear Trees, Fire Blight on, 211
Dwarfs and Standards mixed, 270
on the Quince, 191
Renovating an Old, 372
Standard, Pruning, 301
Peat and Muck, 123
Perhaps Witty, but not True, 68
People's College, 182
PERIODICALS:
Farmers' Journal, 92
Journal N. Y. State Ag. Soc., 380
Life Illustrated, 381
Oxford Democrat, 189
Phrenological Almanac, 323
Prairie Farmer, 356
The Horticulturist, 238
The Farmer, N. Brunswick, 158
Vermont Stock Journal, 153
Working Farmer, 189
Pie Plant, Culture of, 236
Cahoon's Seedling, 301
Plaster, Best time to Sow, 123
How to Apply, 149
Remarks on Use of, 129
Plantain, to Destroy, 350
Plow Factory, Mr. Deere's, 280
Frey's Adjustable Wheel, 68, 159
Gill's Ohio, 321
Prairie, 280
Steam, 52, 300
The Universal, 225, 381
Plowing, Depth of, 259
Deep and Shallow, 58
by Steam, 52, 311
Plum, McLaughlin, 43
Fulton, 373
Plums, Curculio on, 206
Plum Trees, Black Knot on, 93, 123
Pomology, Western, 238
Pond Mud, How to Use, 350
Pork Trade of Louisville, 151
Poppy Seed, Oil from, 22
Post Holes, A Word About, 180
POTATOES—A Word About, 125
Amalgamation of, 162, 189, 291
Boiler for, 310
Compost for, 116
Culture of, 143, 146
Carter, Origin of, 155
Does Freezing Always Spoil? 124
Experiments with, 12, 69, 186, 376
How to Grow Good, 50
How to Store, 63
Mulching, 120
Nutritive Value of Chinese and Common, 310
On Clover Sod, 205
Product of One Pound, 106
Prince Albert, 354
Product of One, 143
Productive, 159
Planting and Culture of, 297
Salt for, 367
Strawberry and Chase, 58, 354
Selecting for Seed, 22
Trial of Manures on, 17
Potato Vines, Bugs on to Destroy, 319
Practical Farming—Good Crops, 64
POULTRY—Capons, how made, 122
Dorkings, 13
Egg Hatchers, 222
Andalusian, 149
How to Fatten, 332
Leghorn, 149, 284, 307
Management of Chickens, 190
Cochin Chinas Dying of Fat, 222
Minorca, 149
Profits of, 27
Roup in, Cure for, 108
Roosts for Chickens, 208
Spanish, 51
Shanghæs, 269
Turkeys, Large, 92, 127
Gapes in, Cure for, 370
How to Raise, 153
Improvement in Breeding, 57
White China, or Swan Goose, 89
Poultrymen, Suggestion to, 356
Prairies, Farming on, 46, 62, 256, 275, 280, 305
Premiums, Cultivator for 1857, 157
for 1858, 330
Prize Essays, Authors of, 229
Prizes, Large, 380
Profits of Farming, 68, 84, 187, 275
Progress, A Mark of, 30
Pruning, Best Time for, 109
in Winter, 49
Root, 117
Thumb, 206
Prunes, Best Varieties of, 122
Queens County Ag. Society, 32
Quince, Upright, 192
Pear on, 191
Question to Mr. Johnston, 94
Radishes, Culture of, 319, 551
Rain, Annual fall of, 222
Rape Seed, Oil from, 22
Experiments with, 177
Spring, Culture of, 254
Raspberry, Orange, 66, 78, 83
Raspberries, Hardiness of, 238
to raise from Seed, 286
Rats and Mice Expelled from Dwellings, 91, 371
How to Destroy, 222
Poison for, 95
Trapping, 172
Reapers and Mowers at Chicago, 127
Trial of in Maryland, 251, 290
in Ohio, 251
at Skaneateles, 251
at Syracuse, 252
Reaper, Kentucky Harvester, 291, 391
Reapers, Large Number in operation, 391
Reaping Machines in England, 258
Registers for Ventilation, 123
Rhode Island State Ag Society, 79
Riversdale Farm, 303
Roofing, Russell's Patent, 122
Root Pruning, 117
Root Cutters, 90, 377
Root Crops, Culture of, 82
for Renovating the Soil, 182
How to Store, 63, 371
Large, 79
Rose Acacia, 176
Rose, Perpetual Climbing, 350
Roses, Hybrid Perpetual, 238
Rotation of Crops, 54, 111, 175
Royal Ag. Society's Show, 289
Ruta Baga, Large, 195
Rye as Food for Stock, 91
Egyptian Spring, 322
Salt for Different Crops, 82, 367
Proposed Experiments with, 147
Will not Kill Grubs, &c., 355
Sawdust as litter for Stables, 28, 220
Saw-Mill, Circular, for Sawing Wood, 49
Emery's Drag Cross-Cut, 22
Scientific Farming, 123
Season and the Crops, 226
Seed, Mixing of, 123
Quantity per Acre, 160
Rolling in, 95
Where to look for Good, 20
Seed-Planter, Home-made, 192
Hammon's, 56, 156
Wakefield's, 159
Short Awn Horn Grass, 122

Sewing Machine, "Ten Dollar," 122
  For the Family, 349
Shade Trees in Pastures, 195, 321
SHEEP—Fat, 92
  China or Tartar, 82, 161, 380
  Feeding, Advantages of, 145, 159, 100, 267
    Profits of, 181
  For California, 224
  Gen. O. F. Marshall's, 299
  Highest Priced South Down, 321
  Large Flock of, 31
  Lamb, Large, 208
  New Oxfordshire, 85, 322
  Productive, 185
  Should be Adapted to Climate, 76
  South Down, Imported by Mr. Thorne, 31
    Jonas Webb's Letting, 291
    J. C. Taylor's, 356
    Mutton, 126
    Prices of, in England, 30
    Ram Frank, 344
    Sales of, 181
  Stretches in, Cure for, 112, 148, 155
Sheep-Shearing, Gen. Goe's, 380
Sinclearville Farmers' Club, 86
Soil, Remedy for a Wet, 216
Springfield Horse Show, 290, 342
Spiræa, Double White, 155
Stables, Stalls for, 267
Starch from Indian Corn, 78
Steam Plow in Ohio, 300
Steam Engines for Farm Purposes, 56, 259
Steam Tree Cutting Machine, 94
  Saw, Wilmot's Portable, 365
Steuben County, Notes in, 282, 297
Stone Wall, How to Build, 297
Stone, Artificial for Building, 109
Stones, Sinking vs. Blasting, 114
Stormy Days, Work for, 242
Strawberry, Peabody's Seedling, 25, 286, 322
  Wilson's Albany, 258, 259, 274, 356
Strawberries, Culture of, 236
  Crops of, 250
  Notes about, 140
  Superior, 291
  Tan for Mulching, 238
  To have Fine, 228
  Transplanting in Summer, 237
Striped Bug, Remedy for, 227
Stump Machine, Hall's, 123
    Trial of recommended, 128
    Willis' Improved, 23, 123
Sugar Cane, Louisiana in Illinois, 159
  From Beets, &c., 43, 76
  From Sweet Corn and Apples, 379
  Maple, Great Yield of, 227
  Mills, How to Make, 84
Sugar and Shade, 246
Sumach, Culture of, 82
Superphosphate of Lime, Experiments with, 171
    Correction of, 334
SWINE—Breeds of, 91
  Cholera in, 114, 227
  Cooked vs. Uncooked Feed for, 146, 277
  Chester County, 240
  Diseases in, 122, 276
  Fattening, 174
    Experiments in, 312
  Imported by C. S. Wainwright, 69
  Large, 59, 126, 127, 195
  Mackay, 287
  Mange in, Cure for, 128, 141
  Suffolk, 366
Terracultor, Evans' Rotary, 216
Terraculture, Comstock's, 258
Testimonial to Mr. Mechi, 354
Thorns for Hedges, 108
  To Raise, from Seed, 15, 33
Tile-making Machines, 66, 147
Tioga County Fair, 355
Tobacco, Guano for, 191
Tools, Care of, 237
Transportation Protector, 188
Transmutation, 189, 228, 259, 289, 340
Transplanting Trees, 180
Trees and Plants, Watering, 342
  Banking up against, 20
  How to Set Out, 152
  In Streets, Care of, 279
  Large in California, 381
  Premiums for on Highways, 322
Tree-Cutting Machine, 32
Turnips and Radishes, Culture of, 319, 351
  Experiments with, 59
  Good Crops of, 79
  Large, 88
  Sweet German, 29
United States Ag. Society's Annual Meeting, 65, 80
  Committee on Implements, 226
  Meeting of Executive Committee, 157
  Medal of, 248
  Premiums for Reapers, &c., 195
    Awards at Louisville, 313, 322
  Show of at Louisville, 313, 315
  Trial of Implements at Syracuse, 252
Verbenas, Culture of, 303
Vegetables, How to have Good, 208
  Profits of Culture of, 238
Ventilation, Registers for, 123
  Remarks on, 124, 215
Vermont State Ag. Society, 65
  Wheat in, 127
Vinery, Mr. De Witt's, 48
Vines Neatly Trimmed, 208
Virginia, Ag. Professorship in, 42
Warming and Ventilating, 215
Washing Machines, 124, 287, 317
Watering Trees and Plants, 342
Water Cress, Culture of in Germany, 238
Water, Drawing f'm Deep Wells, 151, 173
  Elevator, Winegar's, 173, 306
  For Irrigation, 321
Water Ram, Requisites for, 171
    Experience with, 302, 350
    Eight Y'rs Experience with 186
Water Melon, White and Spanish, 228
Water Troughs, 106
  Wheel for Threshing Mach., 87
Wayne County Ag. Society, 80
Wells and Pumps, 223
Western Virginia Ag. Society, 259
Wheat Fields, Large, 290
WHEAT—and Oats Sown Together, 210
  Crop in Illinois, 161, 193
  Crop in England, 364
  Culture of, 182, 266
  Good Crops of, 63, 65, 127
  Harvesting, 304
  Howard Premium for, 353
  In Western New-York, 145
  One Cause of Deterioration, 316
  Salt and Lime for, 95, 350
  Spring, Varieties of, 222
  Smut in, 287, 288
  Turkish Flint, 316
  Winter in New-Hampshire, 26
  Will not turn to Chess, 189, 228, 259, 289, 340
White Springs Farm, 257
Willow, Culture of, 115
Wilmington (Vt.) Town Fair, 354
Wind-Mills, Remarks on, 357
Wine from Catawba Grapes, 26
Winnowing Machine, Nutting's, 324
Winter Cress, How to Destroy, 235
Winter Preparations for, 370
Wisconsin Farmers' Club, 341
Wood, Sawing by Horse Power, 49
Wool-Growers' Association, Officers of, 227
  Exhibition at Penn Yan, 226
Wool, Admitting Duty Free, 66
  Good Samples of Merino, 259
  Heavy Fleeces of, 322
  Long, 32
Workshops and Stormy Days, 242
Yates County Ag. Society, 76
Young Men's National Ag. and Mechanical Society, 227

Index to Correspondents.

A Constant Reader, 15, 60
A Reader, 15, 156, 172, 191
A Tennessee Subscriber, 171
A. A., 21, 28
Alexander, R. A., 23, 30, 225
Alvord, C. T., 50, 213, 221, 339, 375
Allen, E., 57, 117
A Subscriber, 66, 69, 82, 113, 114, 155, 342, 336, 370
Allen, N. H., 86
A Farmer, 125, 208
A. C. W., 127, 152
Allen, A. Jr., 140
Aldrich, V., 141, 151, 369
Ansley, W., 146
Adoles, 146, 159
A Morgan Farmer, 357
A Dairyman, 207
Arnold, Joseph, 213
Agricola, 214
Akin, G. H., 215
A Franklin Subscriber, 216, 222
A Farmer's Wife, 254
Apis, 284, 302
Anderson, W. C., 350
Adkins, A. C., 319
Arkell, James, 333, 338
Alderson, Geo., 339
A. P. L., 362
A Working Farmer, 368
Browne, D. J., 369
Buel, W. O., 371
Bartlett, L., 12, 16, 26, 59, 140, 173, 177, 316, 348, 352
Brownlee, W. C., 162
Barnes, S., 15
Bailey, Asa, 174
Bingham, R. F., 176
Brewer, W. H., 178
Barden, John, 32
Brown, Joel, 32
Betts, Chas., 183
Baron, Wm., 44, 48
Bonner, J., 45
B. C., 186
Bensel, A. A., 83
Ball, L. Chandler, 88
Barns, Wm. D., 89
Burr, Isaac, 114
Butterfield, L., 127
Bell, Chas., 154
Bush, Wm., 151
Bulkley, D. A., 140
Bull, E. Y., 140
Berry, G., 154
Bagg, J. N., 187
Benton, O. A., 191
B. F. J., 161, 193
Boynton, J. W., 195
B., 205, 272
Bronson, A. H., 205
Benton, G. A., 229
Bloss, C. E., 274
Bishop, R. H., 287
Browne, D. J., 369
Buel, W. O., 371
Chavanness, A., 373
Cowles, S. H., 12
Crowder, P. B., 172
Cooke, L. A., 174, 243
Clarkson, T. S., 179
Coy, E. L., 29, 113, 162
Columbia Co., 180
Calkins, C. G., 180
Craven, T. A., 47
Conklin, R. M., 55, 144, 342, 365
Clark, S. G., 63
Clarke, S. S., 185
Chapman, John R., 75
C. A., 80
Cleveland, J. C., 82, 147, 367
Colburn, J. W., 84, 227, 306
Comstock, J. R., 94, 119
C. S. R., 94
Corner, W., 94
Childs, Jas., 111, 186
Craig, John J., 112
Clark, J. W., 115, 337
Clark, Jas. M., 117
Cobb, E. S. H., 122
Cowles, W. E., 124

C. T. H., ... 365
Conklin, G. F., ... 366
Cox, N., ... 154
C. N. B., ... 144
Colby, Chas., ... 148
C. C., ...190, 192
Charlestonian, ... 220
C. M. C., ... 239
Childs, Isaac, ... 246
Cole, A. A., ... 286
Cooke, Henry, ... 291
Campbell, Geo. W., ... 354
Cowles, W. S,, ... 341
D. S., ... 20
Dennison, E,, ... 49, 204
Dennis, W., ... 58
Day, N. C., ... 61
D. C., ...160, 312
Dederick, L., ... 67
Durant, G. W., ...78, 155
Downing, Chas., ... 78
Dearing, Saml., ... 87
D. D. C., ... 110
Dickinson, A. B., ...125, 148
Decker, John C., ... 127
D. W. B., ... 128
Daboll, H., ...139, 170
Dillon, Isaac, ... 154
Dildine, Wm., ... 227
D. C. M., ...244, 288
Dirigo, ... 274
Downer, Wm. B., ... 285
Dike, A. J., ... 322
Denning, W. H., ... 323
Davison, W. J., ... 350
E. S. E., ... 179
E. L. R., ...32, 53, 109, 206, 212, 251, 290, 303
E. W., ... 180
Ellsworth, J., ... 210
E. E., ... 214
Empire State Farmer, ...271, 278
Edgerton, J. L., ...312, 333
Elsie, ... 349
E. Y. B., ... 377
Foster, Ambrose, ... 44
Foster, C. S,, ...66, 74
Fitch, Dr. Asa, ...77, 138, 245, 273
F. A., ... 112
Fay, F., ... 110
Fairbanks, L., ... 124
Fuller, Jas., ... 154
Ford, J., ... 154
F. B., ... 144
Fare, W., ... 192
Farlow, D., ... 208
Foster, Suel, ...215, 347
F. L. M., ... 218
Folsom, Geo., ... 223
Foot, D. D., ... 342
Goodrich, C. E., ...61, 91, 310
Gray, Cyrus, ... 161
Guild, H. H, ... 186
Giles, John, ... 94
G. P. R., ... 108
Graham, W., ... 109
G. B. C., ... 140
Gilliland, S. P., ... 189
Gower, J. T., ... 189
Graves, P. T., ... 191
Garlick, J. R., ... 191
Gawthorp, Thos. E., ... 270
Greybeard, ... 275
G. T. H., ... 352
G., ... 315
G. C. R., ... 355
Gray, C. D., ...335, 350
Gibbs, Smith, ... 350
Harvey, T. M., ... 374
Hodson, J. H., ... 171
Haxtun, W. E., ... 27
Hammond, Geo T., ...28, 45
Haight, D. B., ... 181
Halsey, D. L., .47, 83, 189, 206, 247, 334
Holmes, John, ... 161
Hammon, H. B., ... 156
Harroway, Jas., ...122, 186
Houghton, Z., ... 90
Hopkins, A. J., ... 90
Hazzard, O. H., ... 106
H. C., ... 107
H., ...108, 141, 343
Hoffman, Wm. C., ...109, 156
Hadwen, O, K., ... 151
H. H., ... 159
Harmon, R., ... 149
H. B. S., ... 191
Hard, C. S., ... 214
Hanford, W. B., ... 224
Huntley, Wm, E., ...225, 288, 300
Howatt, Gerald, ...235, 243, 354, 376
Hanson, N., ... 255
Hanchett, G. A., ... 259
Holland, John C., ... 285
Hawk Eye, ... 60
Howard, M. H., ... 288
H. V. W., ... 288
H. C. W., ... 351
H. A. J., ... 311
H. H., ... 362
Hamilton, W. T., ... 317
Holmes, Robert, ... 319
Hallenberger, D., ... 322
Harison, T. L., ... 332
House, A. N., ... 347
H. A. G., ... 338
Iota, ... 123
Inquirer, ...228, 259
Ingersoll, J. D., ... 355
Jones, Wm. M., ... 32
Johnson, S. W., ...41, 137, 201, 310
Johnston, John, ...58, 145, 160, 226, 228, 378
J. E. S., ...106, 109
J. W. F., ... 121
J. U. A., ... 207
J. F. D. L., ... 214
J. L. D., ... 240
Jackson, Jas., ... 286
Johnson, T. B., ... 350
J. L. D., ... 308
J. M. M., ... 339
Kimball, C., ... 123
Klassman, W., ... 222
Lum, H. B., ... 16
Levesque, J. Jr., ...17, 247, 334
L. C., ...21, 95, 114, 124
Lawrence, Thos., ... 32
Little, Norman, ... 183
Lequear, J. W., ..50, 67, 123, 177, 190, 273, 276, 371
L. R., ... 124
Livingston, W. E. M., ... 155
L. A. B., ... 138
Ladd, Wm. H., ... 279
Laura, ... 350
Lyman, D., ... 317
Lindsay, Joseph, ... 319
Little, J. T., ... 319
Leffingwell, E., ... 323
Meek, C. B., ... 18
Moss, A. S., ...21, 33
Marks, Wm., ... 33
Maltby, E. S., ... 61
Mitchell, P., ... 69
Meyer, J. G., ... 95
Morris, L. G., ... 157
M. H. K*****, ... 112
Moerschy, John, ... 120
Metcalf, T. M., ... 122
Maxson, E., ...124, 255
McCoy, D. H., ... 148
McNeill, S. P., ... 149
Martin, C. R. C., ...149, 230
McKinley, Wm., ... 192
Miller, David, ... 207
Moore, C. C., ... 223
McCarthy, E. J., ... 240
Merrill, L. L., ... 247
Marshall, O. F., ... 259
Morris, Aaron, ... 276
Mebain, D. C., ... 365
Noyes, N. H., ... 318
N. H. N., ... 66
Newell, E. R., ... 155
Neall, W. E., ... 350
Ott, C. B., ...143, 223
Orchardist, ... 351
O. H. W., ... 355
One who Holds the Plow, ... 142
Progress, ... 23
Peabody, C. A., ... 25
Pettee, W. J., ...182, 223, 255
Pope, A. C., ... 43
Pettibone, John S., ... 55
Parker, J. M., ...94, 123
P., ... 114, 189, 366
Parker, Daniel, ... 119
Plank, M., ... 121
Patterson, W. A., ... 122
Powell, A. C., ... 127
Proudman, Wm., ... 142
Palmer, Allen, ... 190
Proctor, J. W., ... 236
Price, W., ... 254
Price, Geo. B., ... 279
Patrick, M. R., ... 301
Pearsall, R. W., ... 307
P. A. S., ...337, 350
Quinby, M., ... 128
Rudisill, John J., ... 15
Rural, ...176, 180
Randolph, W. W., ... 29
R. J. B., ... 46
Robertson, Francis, ... 123
Randall, F., ... 191
Reddish, T. R., ... 218
Rumford, Isaac B., ... 222
Ritz, Philip, ... 249
Randall, E., ... 259
R. H. B., ... 291
Reed, J. H., ... 353
Reed, C. G., ... 340
Robinson, J. A., ... 372
Sidebotham, P., ... 376
Smith, B. D., ... 172
Scott, J. W., ... 20
S. L., ...176, 179
Sutherland, S. W., ... 46
Sanders, E., ...48, 83, 120, 153
Sotham, Wm. H., ...55, 128, 355
Shelby, Isaac P., ... 89
Shipman, J. S., ...114, 218
Steers, B. W., ... 152
Saratoga Farmer, ... 207
Spilman, J. E., ... 218
Sergeant, John T., ... 225
Smith, John, ... 240
Sanborn, J. E., ... 249
Sterling, S., ... 255
Spectator, ... 355
Stevenson, Jas., ... 342
Thomas, T., ... 182
Todd. S. Edwards, ...81, 235, 308
Talcott, J., ... 85
Thompson, Jas., ... 94
T. E. C., ... 94
Trowbridge, George, ... 111
Tuttle, J. H., ... 153
T. E. B., ...147, 161
Todd, Wm., ... 191
Taylor, J. C., ... 205
Thomas, David, ... 211
T. A. D., ... 284
Turner, W., ... 286
Van Rensselaer, A., ... 154
Vose, H. T., ... 10
Vrooman, G., ... 15
Valk, J. M. E., ... 33
Weare, D. G. Jr., ... 159
Webster, C. F., ... 170
W. H. A., ... 174
Warfield, Wm., ... 29
W., ...45, 58, 141, 162, 179, 317, 318
Williams, A. M., ... 185
Worden, S., ...49, 274
Wallace, J., ...54, 61, 82, 224, 326
W. T. L., ... 185
Whitney, Isaiah, ... 81
Wadsworth, J., ... 370
Wilson, E., ... 82
Woodward, W. F., ... 91
Williamson, R., ... 190
Wilmarth, Sewell, ... 191
Whedon, Allen, ... 208
Welton, H. V., ... 220
W. M. B., ... 229
Woodbury, C. W., ... 245
Williamson, H., ...274, 285, 347
W. M., ... 285
Wilson, Smith, ... 285
Wyckoff, John B., ... 287
W. H. S., ... 291
White, J., ... 351
W. N., ... 302
Whitehead, J. B., ... 335
Wyman, W. G., ... 335
Winspear, Wm., ... 375
Wilcox, R. J., ... 364
Waters, J., ... 366
Williams, Joel, ... 381
Zero 323

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD — To Improve the Soil and the Mind. — SERIES.

VOL. V. ALBANY, JANUARY, 1857. NO. I.

The Twenty-Fourth Year of the Cultivator.

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Mistaken Reasoning.

Nothing is more common than the practice of forming false opinions from insufficient data. It is a fruitful source of all the differences existing on various subjects in agriculture.

A single trial may be followed by certain effects. They may be accidental, and not occur again; or they may often occur, and yet have no connexion with the supposed cause. A solitary proof of this sort should never be received as anything more a suggestion for further trial. If, on being repeated, the same effect follows, the probability is increased; but it is only by many trials under all possible circumstances, that an indisputable connexion between cause and effect is established—a mode of proof, known as the *experimentum crucis* of Baconian philosophy.

We may adduce a few examples. Some years ago, the theory was advanced that electricity was a most important agent in the growth of plants. It was found that a grape vine, planted at the foot of a lightning rod, made a growth several times greater than another vine in a similar soil a few yards distant. This was thought to be proof positive—"no doubt at all," but the electricity streaming down the rod, stimulated a most vigorous growth of the vine. An experiment to prove the same theory, was made by burying a copper wire a foot or more beneath the soil, the ends of which passed upwards like lightning rods, and terminated in sharp points. The row of beans planted over the buried wire, was twice as large as any other beans in the garden—another "indisputable proof" of electrical influence. It was found however, by more careful examination and other experiments, that the rapid growth of the vine was solely owing to the deep and loose bed of earth, made by digging the large hole in which the lower end of the rod was buried; and that the loose earth of the trench in which the wire was laid, was the sole cause of the fine appearance of the row of beans.

The luxuriant appearance of the grass under the shade of a tree standing in a pasture, was pointed out recently as a proof of the theory that "shade is the best manure." The tall green growth at this spot, was indeed in strong contrast with the short pasturage elsewhere; but a further examination proved that other trees growing in adjoining fields not occupied as pastures, exhibited no such appearance; and that the larger crop in the shade was a result of the amount of *top dressing* the land had received here, from the numerous cattle which had made the shade of this tree a resort for several hours each day,—with the added reason that cattle always prefer grass grown in the sun, to shaded pasturage, especially if that shaded portion has been stimulated by fresh manure; and hence this grass was not gnawed so short as the other.

A striking instance of this fallacious mode of reasoning, occurs in the origin of the opinion that wheat turns to chess—the more remarkable on account of the singular combination of causes to favor such an opinion. A farmer sows a field of wheat; a part of it is injured by winter; chess is found growing abundantly on the injured spots and no where else; and the first doubtful thought is that the wheat by partial injury has been changed into chess plants. But so bold a conclusion needs stronger and additional proof. This is found in the fact that if the wheat was eaten off early in the season by cattle, chess springs up in its place; that if injured seed is sown the same result often takes place; and especially that when apparently clean wheat is sown, plentiful crops of chess immediately follow. The application, however, of Bacon's *experimentum crucis*, which requires that the experiment should *fit the theory* in all possible variations, proves the fallacy of the opinion of transmutation. For it is found that there are many parts of the world where the chess plant is entirely unknown, but which are equally liable to the changes of weather producing winter killing, and where cattle are as liable to break into wheat fields, as here. It has also been ascertained, that the chess plant will grow and perfect its seed, in a dense growth of wheat and other plants, unperceived, and thus fill the ground with its seed; but that when this shading is removed, as by the winter-killing of the wheat, or its destruction by cattle, the chess plants will spring up several feet high and spread abroad in every direction, bearing many thousand fold, and that this remarkable property alone is sufficient to account for the supposed change of the wheat to chess. It is likewise found, that from the smallness of the chess seed, it frequently exists unperceived in great numbers in what is supposed to be clean seed wheat, and is thus often largely sown, unknown to the farmer; and that its extreme hardiness enables it to escape injury during its dissemination in manure, and in the dung of cattle and other animals. The fact that with all these adverse circumstances, many farmers in various parts of this State, have succeeded by many years of great care, in entirely eradicating the weed from their seed and from their soils, shows beyond a doubt that some other explanation than transmutation must be adopted for the appearance of fields of chess where wheat only has been sown.

We could adduce other instances; but these may be sufficient to show the importance of forming opinions with great care, and not until a thorough course of accurate experiments has been resorted to,—whether it be in the estimate of the value of manures, different modes of planting and cultivation, the profitableness of different breeds of animals, or any other important question in farm economy.

* * *

Destructive Apple Insect.

Eds. Country Gentleman.—You desire 'valuable practical information relative to this insect.' If the following is 'valuable practical information,' you can print it.

During the latter part of July last, I discovered a black ooze issuing from the trunk of a young Northern Spy. The orifice was eight inches from the ground. Cutting off the bark, I found that the inner bark and the newly forming wood had been chewed up, as I judged, leaving a brown saw-dust—like residuum. The outer bark appeared to be untouched, but was discolored; hue, darker than the natural. Extent of operation, three-fourths of the circumference; from entering orifice to insect, two inches. Insect about one inch long; color, yellowish white, three-sixteenths of an inch wide just back of eyes, tapering to tail; teeth, black, and hooked; body divided by eleven worm-like rings. This tree was accidently pulled up after it had been set out, and was injured.

Second case.—A young Gravenstein—orifice two inches from ground. Indications same as in case first. Three insects at work eight inches from the orifice. Upon examining this tree, I found that the heart had decayed so that I could thrust up a probe five inches. This was not the work of this insect, but must have been a previously existing defect.

These were the only trees affected on my own grounds. Since then I have examined dozens of trees on which these insects have wrought; in several cases causing the death of trees six inches in diameter. All of these trees were *diseased*, *injured* or *neglected*. Conclusions from this observation—1st. That if *healthy*, *sound* trees are *well cared for*, there is but little to fear from this insect. 2d. That if it should find a lodgment, *regular inspection* of the trees will detect its presence before much evil has been wrought. 3d. If the indications are found, the insect can soon be exposed by following the trail with the knife. Lastly, its presence indicates carelessness on the part of the *nurseryman*, the *carrier*, or the *horticulturist*. H. T. Vose. *Jackson C. H., Ohio.*

A Day or Two in Fayette.

Lexington, in the county of Fayette, and State of Kentucky, is a name consecrated in the memories of all true Americans, as one synonymous with exalted patriotism and true greatness. Like Mount Vernon, Monticello, Marshfield, and some other like distinguished places, it will for all future time remain one of the Meccas of Pilgrimage to those who love to look upon the homes of the great statesmen whose labors and influence have shed a halo of glory upon their country. Henry Clay of Ashland, has immortalized Lexington.

A mile beyond the outskirts of the town, on the high road to Winchester, lies Ashland, for many years the home of the great statesman—the place where he *should* have died, and not far from which his remains lie buried. It is an extensive estate of some eight hundred acres, as the great man occupied it, in cultivated fields and woodland parks, now owned in separate divisions, by two of his sons and his aged widow. It is scarce worth while to describe it, other than as comprising, in its ample enclosures and the tasteful appendages of its home-grounds, a most fitting place for the abode of the illustrious man who so long made Kentucky a great name in the land, and drew from his admiring countrymen all the plaudits and reverence which grateful hearts could bestow. The dwelling-house of the departed statesman, worn and dilapidated by time, has been pulled down, and on its site stands an elegant brick mansion, built in excellent style by its present proprietor, James B. Clay, a son of Henry. The mother, and widow resides about a mile distant on another part of the estate, with her son John,—a pleasant elevated place, overlooking the old residence, and the neighboring town. Lexington is well built, for the times in which it *was* built, finished, much of it painted, the remainder whitewashed, and is quite in tolerable repair. It is surrounded with fine residences, gardens, grounds, and farms, and the appearances of wealth and luxury. The oldest of the large towns, Lexington drew into its borders the early talent, enterprise, and monied capital of the state, and up to the present is the abode of more distinguished families than any other. Louisville is a much larger place, but is a commercial and manufacturing town, not the seat of its old aristocracy and great landholders. Yet the wealth of central Kentucky is not concentrated within the bounds of Lexington. The owners of much of it live in the surrounding country, many in Fayette, making the town their commercial centre, and the place of their stated gatherings. Frankfort, some thirty miles to the north-west, is the seat of state government; but it is a *provincial* town, compared with Lexington, and on one extreme of the fertile, sunny region of which this is the business centre. Among its notorieties, Lexington has many public Institutions—of Education and other Philanthropies, besides others in its neighborhood. Prominent among these neighboring institutions is one of a personal kind, and that is embodied in

Robert J. Breckinridge, D.D.

This gentleman, the master-spirit of the Theological school or Seminary at Danville, Kentucky, has his family residence eight miles north of Lexington, on the turnpike road to Newtown. A son of the distinguished Attorney-General of the United States in Mr. Jefferson's time, he was educated a lawyer, and engaged for some years in the profession. He then became a Presbyterian clergyman, and after many years of laborious service as a pastor in Baltimore and his native state, was installed as a professor in the office he now so highly graces, and in which he has achieved a name and reputation co-extensive with his country. But these are not all the honors which Dr. Breckinridge may claim; if they were, they would not here be recorded. He is a distinguished Farmer on his own estate of Breadalbane, some five hundred acres of the finest Kentucky land, and a prominent stock-breeder among the country gentlemen of his neighborhood. Though not aspiring to the mark of sundry of the scriptural patriarchs in the number of his herds and flocks, he is doubtless much more select in the choice of his varieties; for his Short-Horns, his horses and mules are all of the best. For four months of the year—June to October—the Dr. resides upon his estate. The other eight are spent in his collegiate labors at Danville—labors of love with him, and in the discharge of a conscientious duty which he would not willingly postpone. Yet he delights in his farm, and loves agricultural pursuits with the ardor of an enthusiast.

A drive over a fine undulating road, past luxuriant farms and noble forest-parks, brought us to the home of the distinguished Divine at 10 o'clock on a delicious October morning. Through a gate, in the usual Kentucky fashion, a carriage way leads into his spacious lawn, down a slope, past a spring-house, and up a short hill on to the table land, where stands his plain, yet commodious dwelling, surrounded with those rural appendages, which give to the best of these Kentucky homes an air of repose and dignity. Finding the proprietor at home, a warm welcome, and a seat in the broad verandah of the house, placed us at once at our ease. A two hours stay, to which our time was limited, inducted us rapidly into the mode and manner of the Dr.'s agricultural pursuits, as well as the constant professional labors, from which even his months of vacation do not wholly spare him. It was with the highest pleasure that we heard the words of wisdom and experience, from a man who, as a political-economist, statesman, and divine, had arrested and fixed the attention of great minds in foreign lands as well as his own, and in the midst of laborious duties in public capacities still loved to till his own acres, tend his own herds, and watch after their improvement and welfare. Henry Clay was a distinguished stock-breeder on his farm, and in the vacations from his public labors loved to look after his horses and short-horns, his asses and mules, his sheep and his swine. Daniel Webster loved to be among the cattle and flocks of his farm, and we have heard him discourse most eloquently on the comparative qualities of his Devons, and Herefords, and the luscious cream of his Alderneys. And Doctor Breckinridge, their peer in thought, if less privileged in his labors of State, and as brilliant a colloquiast as either of them when living, loves his cattle equally as well, and neither Clay nor Webster could talk of their own American trees and parks, and rural occupations, more eloquently, for he was also "to the manor born." The Doctor showed us his herd of Short-Horns, and some fine young horses, which were driven up for our inspection. He has been a breeder of Short-Horns for thirty years, has pursued his own course in their cultivation, and a correct physiologist, he has been eminently successful in producing a large and excellent herd. A great man in thought can be a great man in practice on any subject, when he chooses to give his mind to it, and looking at Doctor B.'s agricultural labors, and their results, we could not but reflect upon the great benefits which men so employed may confer upon their countrymen, contrasted with many others, who affecting to be equally prominent in their professions, and with less physical infirmities, while away their terms of recreation in—nonsense.

With much regret that we could not partake of his urgent hospitalities for the day, we reluctantly bade this distinguished man adieu, mentally regretting that his useful example should be so rarely followed by others of like abilities and opportunities.

Our return to Lexington brought us around to the fine farms of

Capt. Ben: Warfield and his Sons.

They occupy a large and beautiful estate four miles northeast of Lexington, now divided into three farms, one owned by the father, another by William, and the other by Benjamin junior—the sons. Capt. Warfield* is one of the oldest Short-Horn men in Kentucky. For forty years he has been a successful breeder, beginning with the descendants of the Gough and Miller importations in Baltimore, early in the century, and afterwards from the cattle of Col. Sanders' importation of 1817, and other later importations from that time to the present. Hundreds of well-bred Short-Horns have descended from his herd, and been scattered all over the Western States. With exceeding regret that his impaired health would not permit him to go out with us, we examined their several herds in company with his sons, and admired much the superior style, symmetry, and excellence in their breeding. A critical examination of these herds, Dr. Breckenridge's, and some other Kentucky breeders, together with a close inspection of the Short-Horns imported by them twenty years ago, has convinced us that the skill of these gentlemen has much improved their stock in quality beyond *those* importations, and but a few of the animals recently imported will excel them in general excellence. A family dinner at the house of Capt. Warfield, in company with the sons, a brief call at the farm of William, the son-in-law of Doctor Breckinridge, and we reluctantly left this agreeable home for a passing call at the fine estate of

Doctor Elisha Warfield,

two miles nearer, and on the way to Lexington. Here is a large farm, well improved, with a numerous stock of blood horses, and an excellent breed of Short-Horns upon it. Doctor Warfield has long been celebrated as a breeder of blood horses. Lexington, a horse recently sold to R. A. Alexander, Esq., of Woodburn, for $15,000, was bred by Doctor Warfield. He has several beautiful brood mares, fillies, and horse colts, and breeds now, not so largely, but as enthusiastically as ever. His cattle are fine, and he is now crossing them with fresh blood of late importation. Woodland pastures, fine fields, ample dwelling, and convenient surroundings adorn this estate, and after a pleasant visit of an hour we hurried on to further engagements for another day, beyond Lexington.

Indian Millet or Dourah Corn.

Messrs. Editors—In the last Patent Office Report there is a page or two devoted to the history, cultivation, &c., of the Dorah Corn. In different places it is known by different names. The "Report" says "this plant grows well on the poorest soils, yielding from 10 to 100 bushels of seed per acre, according to the quality of the land and the mode of culture. It is sometimes cut green for soiling cattle and mules; and if properly done, so as not to injure the buds near the ground, it may be cut several times in a season. When intended for fodder, it is cut and cured like the stalks of Indian corn. They remain green for months and do not ferment nor spoil so soon as Indian corn and other grain. After it comes up it will grow in spite of the frost, rain or drouth, being a very hardy plant. After it gets a start it defies weeds and grass, and will make a crop in spite of every disaster."

Much more is said respecting this plant in the Report. I have read in some of our papers recently, that the Dorah has been somewhat extensively cultivated in Ohio, and fed to cattle in connection with meal, with very good results. Last spring I received a few seeds of the Dorah. Thinking them of no particular value, they were planted in a dry gravelly soil; they soon came up, and grew well till checked by a severe drought; some of the leaves were completely dried. Rains came on in August, which gave the plants a new start. It out-grew the Chinese sugar cane, near by, and headed out and got fairly in blossom when the first frost came. The stalks were cut up first week in October, and thrown on to a scaffold where they remained till 4th of the present month, when I examined to see if the seeds had ripened. I cut a piece from one of the stalks, and stripped off the outer coating, and ascertained that the juice was very sweet—more so than any maple sap I ever tasted. I doubt much whether the Chinese sugar cane is sweeter.

From the fact of its containing so much saccharine matter, and its hardiness, I believe it may prove a most valuable plant, in connexion with others, as a forage or soiling plant, and worthy more extensive and further trials. Says the P. O. Report: "Taking into consideration the facts that it will yield more stalks, fodder, and grain, on a greater variety of soils, and with less labor, in any season, and return more litter to the land than any other grain, and being a universal food for man and beast in tropical climates,* it may be justly considered one of the most valuable of the Cerealia."

Whether it may prove more valuable for soiling purposes than the Chinese sugar cane, is a question for future experiments to determine. But I have no hesitation in saying either of them will be found far preferable to our Indian corn, as green, or as winter forage for our farm stock. L. Bartlett. *Warner, N. H., Nov.* 20, 1856.

Experiments with Potatoes.

Last spring, June 2d, I planted one pound and eleven ounces of the blue or fall Mercer. I cut them so as to have one eye on each piece, and three pieces, with a shovelful of horse manure, to each hill, and from them I dug 53 lbs. of potatoes. I planted five pounds and thirteen ounces of the Jenny Lind potato in the same way, and from them I had 132 lbs. 8 oz. of potatoes that were worth having; one of them weighed 2 lbs. 13 oz.; twenty of them filled a half bushel, and weighed 25 lbs. 8 oz.; two of them measured eighteen inches in length. In measure, there was one bushel of the Mercers, and three and a half bushels of the Jenny Linds. The land on which they were planted was 18 by 24 feet. S. H. Cowles. *Norfolk, Ct.*

Chinese Sugar Cane.

Messrs. Editors — One of my neighbors raised some of the cane from seed sent to him from the Patent Office. I took a few of the stalks and extracted the juice, and boiled it the same as maple sap. It was far superior to any cane molasses that I ever saw. The yield of syrup is one to six of the juice.

Any information in regard to its cultivation, and the manufacture of the juice into syrup or sugar, will be thankfully received by S. H. Cowles. *Norfolk, Ct.*

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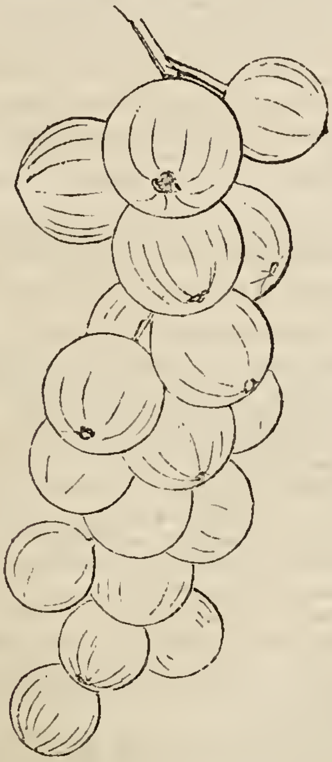
* Since this was written, intelligence of the death of Capt. Warfield has reached us. He was an upright, honest, useful man, and will long be regretted by those who best knew his excellent character.

* By early planting, I think the seeds would mature as far north as this.

The Currant—Two of the Newer Varieties.

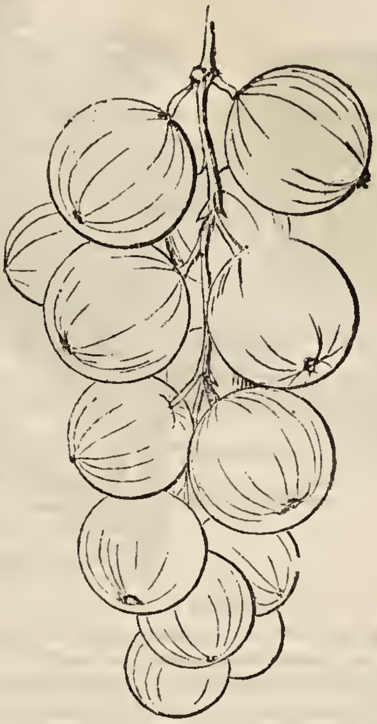
The currant needs no eulogy. Its hardiness, productiveness, ease of culture, time of maturity, its many uses by way of jellies, jams and tarts, and its refreshing qualities eaten fresh on the table, place it above any other summer fruit, for universal cultivation. Yet very few ever see the currant in perfection. No fruit is more generally neglected in culture. Grown in thick grass sod, never pruned, never manured, and the bushes allowed to assume the character of a mass of stunted brush, the berries are not more than one-fifth the size (as we have found by actual measurement,) which they attain when well cultivated, the old wood cut away, and the vigorous young shoots only allowed to bear. The old red and white currant, by such treatment, may be made larger than the new mammoth sorts will grow without it. This improved management is very simple and easy, and does not require more labor annually than every good farmer gives to a row of potatoes of equal length.

The old varieties will be wonderfully improved by this course—but there are some new sorts which, so far as size is concerned, may be made greatly to exceed them. Nothing of the kind could grace a tea-table better, than a mixture of the Cherry and White Grape currants, new varieties, which with good culture will average in the berries, the latter nearly, and the former fully half an inch in diameter.



WHITE GRAPE CURRANT.

The *White Grape* is the largest white currant, being distinctly larger than the White Dutch, and fully equal to it in flavor. The bush is rather a slow grower, and spreading and somewhat irregular in form. The figure accompanying this article gives the exact dimensions of bunches grown on bushes with moderate cultivation in a clean, garden soil; the larger berries being nearly or quite half an inch in diameter. We have cultivated it many years, and found it uniformly productive, having procured it originally of Ellwanger & Barry, of Rochester, who have now, in their immense nursery, nearly an acre of saleable plants, of this variety alone.



CHERRY CURRANT.

The *Cherry* currant, is the largest known red currant, the berries, with high culture, measuring five-eighths of an inch in diameter, half an inch being very common. The bush is a strong grower, with the shoots short and thick, and easily distinguished in appearance from other varieties. Its flavor is not equal to that of the Red Dutch, being rather acid, and it is not generally so productive as some others, although heavy crops are sometimes seen.

Those who procure these large varieties, and give them no attention, will be disappointed to find them but little larger than older sorts.

The Dorking Fowl.

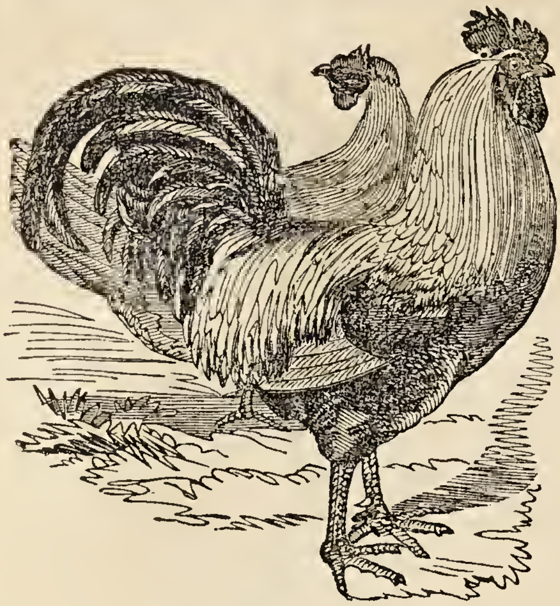
The Dorking is the oldest, and for all purposes, the best domestic fowl in England. Its origin is uncertain. Some suppose it was bred by the ancient Britons, previous to the invasion of the island by Cæsar, as the conqueror informs us that the Britons had a large number of cattle; and that they had both hens and geese: but of the fowls they could not eat, as they were prohibited by the Druidical priests.

It is not improbable that Dorkings were first carried to England by the Romans, for Columella, who wrote 2000 years ago, describes the domestic fowl of the Romans as possessing, among other traits, the following characteristics of the best Dorkings of the present day: "Let them be of reddish or dark plumage, with black wings. * * Let the breeding hens be of robust body, square built, full breasted, large heads, with upright and bright red combs. * * Those are believed to be the best with five toes."

Wherever the Dorking may have originated, it is quite certain that England is the only country where this bird has been successfully bred for at least the last one hundred and fifty years, until quite recently; but for the last few years this superior bird has been growing in favor on this side of the Atlantic.

The Dorking was named from the town of Dorking, in the county of Surrey, in England, a town where this bird has long been bred in great purity.

A few years since, poultry fanciers in England, gave the preference for purity of race, to birds having sin-



DORKING FOWLS.

gle combs; but now those possessing double combs are accounted as pure-bred, and are entitled to equal honors at all the poultry fairs. Public taste alone has not extended this rule, but there is another reason of a more stable character, one that breeders everywhere are obliged to acknowledge, which is stated by the Rev. Mr. Wingfield as follows:

"But another reason is at hand for relaxing the rules on the Dorking comb, and one too, that is based on the experience of the most skillful and most successful of our Dorking breeders, who know that, from the best selected birds with like combs, single, rose, and cup-combed birds are produced in the same clutch. Many of the latter in particular are among the best-shaped and finest birds; and yet from the prevailing fashion are too often doomed to the spit, instead of being preserved as the probable parents of superior stock."

The Dorking family is distinguished by the follow-characteristics:

"In the cock the single comb should be stout, well arched, and regularly toothed, and about two inches high above the skull in its loftiest part. The double comb should not be more than an inch and a half high, and very double, but with its points of an equal height. Both kinds of the comb, as well as the wattles, should be bright crimson, the latter being large and pendulous; head small, with a well-arched forehead; neck tapering gradually from the shoulder upwards; neck-hackle long; shoulder broad; breast wide and very prominently round; back broad, stout, and square; legs white, short and muscular; claws five in number on each foot, and well defined; tail ample and well sickled; carriage bold and firm. When erect, the full height is about twenty-two inches."

"In the hen the comb should be low, small, and regular; but in all other respects her form, in diminished proportions, should have the above characteristics. In height, when erect, she should be about fifteen inches."

Sub-varieties.—There are but two principal divisions in the Dorking family: the White and the Colored.

The white Dorking cock and hen have perfectly white plumage, bills and legs; a bright-red and full double or rose comb in both sexes, distinguish the best birds. Some have single combs, but it is considered a defect. The white are considered less hardy, and are one to two pounds less in weight, than their colored relatives.

The colored Dorkings vary in hue from a dark-hackled, black-breasted bird, through every intermediate shade, to an almost white-hackled and light-speckled fowl. These have been subdivided according to the prevailing color of the respective birds, into Gray, Speckled, Spangled, Red, and Cuckoo. We think the dark colored the best.

"Peculiarities," says the English "Poultry Book," belong to every breed, and it is one in Dorkings that almost every color may be produced from the same parents (black and white alone excepted), and the characteristics of this bird are still preserved unimpaired."

The Dorking sometimes has a sixth toe, and one of the best cocks we ever saw was marked by this peculiarity. On the other hand, a fine bird will occasionally be bred in the same clutch, as the one with six toes, which has but four toes. Such a bird should not be rejected as impure, for its progeny is as likely to have the fifth toe as that bred from the other.

The weight of the colored Dorking cock varies from seven to eight pounds; that of the hen from six to seven; but these weights are frequently exceeded from one to two pounds. The hens are good layers, and their eggs are rich and large, next in size to the Spanish.

Dorkings mature earlier than most fowls, and months earlier than the Shanghai. This is a quality that should not be overlooked, as early chickens always bear a good price.

In selecting breeding stock, the first care should be that the birds possess the characteristics of the family, especially in reference to squareness of build, shortness of legs, and fulness of breast; a quaint write says of the latter qualification, that "a Dorking should be all breast." The same writer thinks "pullets produce the best chickens for stock birds, but hens for early maturity."

To secure full clutches of chickens, no more than four or five hens should run with each crower. Beside, the sexes should be from different stocks, at least every alternate year, if they can be mated well in this manner. It is better to keep the sexes separate during winter until near breeding time. All young crowers, of this or any variety, from which it is intended to breed, should be kept by themselves until nearly a year old.

Mr. Doyle, author of "The Illustrated Book of Domestic Poultry," a work of much merit, says ·

"We have Mr. Baily's professional and disinterested judgment, which has pronounced "that there is no breed to be compared with the Dorking, which unites in itself more than any other, all the properties requisite for supplying the table; that the hens are good sitters and good mothers, and that there is a natural tendency in the breed to fatten, so that the young ones are made to attain to eight or nine pounds weight, and at the table they surpass all others in symmetry of shape, and whiteness and delicacy of flesh."

It is almost universally admitted that no fowl is so well adapted to the table as the Dorking, for certainly if compactness of form, whiteness, fineness, and tenderness of flesh are the requisites, it must be conceded that this bird is pre-eminent; and in respect to flavor the Dorking is nearly equal to the Game fowl.

Roosting perches for the Dorking should not be more than three feet high.

Some have thought the Dorking to be a tender fowl, but they are not generally so considered either in England or this country; and so far as our experience and observation are concerned, we consider them as easily raised and as hardy as the Shanghai.

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Great Mouse Hunt.—A great mouse hunt came off recently in Bridport, Vt. Two parties of forty on each side, with the addition of as many boys as they could enlist, were organised under Joseph Fletcher and Charles H. Hill, as Captains. The result, according to the count of the judges, was as follows:

Joseph Fletcher,	512 rats—	17¾ bushels mice.
C. H. Hill,......	447 rats—	13¼ bushels mice.
Total,........	959 rats. and	31¼ *bushels of Mice.*

Effects of Underdraining.

We have often heard of the great benefits resulting from *underdraining*, but have never seen them more strikingly illustrated than recently on viewing a piece of land on which had grown cabbage the present season. We understood the proprietor to say that he had sold from this piece of land, containing three-fourths of an acre, 4000 heads, varying in weight from 20 to 47 lbs. each—averaging at least 30 lbs.—at the rate of $11.50 per hundred heads. This, if we compute right, gives a net produce of more than $400 to the acre. When we take into view that the culture of cabbages requires no extraordinary skill, and but a moderate application of labor, we think this product equal to any we have seen the present season. We know not to what to attribute it, except the fact that the entire piece has recently been *underdrained* to the depth of about three feet. It is flat land ; has been well fertilized for many years by the liberal application of sea manure, and has generally yielded from two to three tons of hay to the acre, besides a fair cutting of second crop. If *underdraining* can produce such effects, there are hundreds of acres along the shores of Old Essex, Mass., that can be equally benefitted by this process. A Constant Reader.

Application of Yard Manure.

The statement of John Johnston of Geneva, in a late number of the Country Gentleman, is interesting, and it suggests some considerations in connection with known facts and experiments which are perhaps worthy of attention.

It may be laid down as a universal rule, applicable everywhere, that stable manure to be applied in the most efficient manner, should be perfectly intermixed with the soil, at precisely such a depth as the roots of plants go in search of nutriment. Perhaps the most perfect intermixture with the soil, so far as it goes, is that effected by the application of liquid manure, which becomes very finely diffused through it. But as only a portion of the manure will dissolve in water, the next mode, nearly as perfect, and more generally applicable, is to pulverize the manure finely, either by harrowing, or by grinding it down, with a "drag-roller," both of which at the same time work it into the soil. Experiments have been made which go to show that manure completely pulverized and very intimately intermixed with the soil, will do more good than three or four times as much fresh manure left merely in lumps and plowed under without any further care.

We see the reason why John Johnston finds it best to leave his manure in heaps through the first summer. He *harrows* it into the wheat ground, which can be done much the best with rotted manure ; and if the quantity of straw be uses is quite large, as is the case with all good farmers, this amount of vegetable matter enables it to hold most of the escaping gases. The proper way would be to add some sods or loam, to the heaps, and it would make an admirable compost by autumn.

Great advantage is always derived from spreading manure on the surface in autumn, to be plowed under in spring. All the soluble portions are washed in liquid form into the soil, and are intimately diffused through it. This advantage is so great that some good farmers prefer this practice alone to any other. Turning in the remainder, which lies on the surface, during the spring, improves the *texture* of the soil, even if all the enriching parts have been washed out, which however is not the case.

Rules should be laid down by every farmer in the application of manure.

1. Manure should be reduced to such a condition that it will easily break up fine, and mix into the soil easily. A summer fermentation, secured from loss by intermixed sods, ditch cleanings, or loam, is unquestionably the best.

2. Manure should never be plowed under, without first having been well and finely broken up, and worked into the soil by repeated harrowings. Grinding down with "a drag-roller and harrowing often enough, will enable the farmer to mix fresh manure as completely with the soil, as rotted manure, only with more labor, yet with a smaller loss from evaporation. A Reader.

The Ground Cherry.

Messrs. Editors—I write to request information in relation to a certain fruit which I have received from Ohio, with a view to its introduction here. It is called the *Ground Cherry*, and is in size and form very much like the varieties usually cultivated in this country, with the addition of an external husk similar to the inner husk of corn, and is of a whitish color inclining to a yellow, and of a pulpy texture, not dissimilar to jelly, with seeds distributed like the currant, growing as I am informed, on a low bush or shrub. Now, may I ask of you the favor to inform me through the columns of your paper, what is the proper mode of culture, commencing with the propagation from the seed and its after treatment, manures or soil, and the proper manner of gathering and keeping the same, and furthermore the uses and market value of the fruit. G. Vroman. *Lowville.*

The plant above described is an annual of very easy culture. It will grow on any tolerable garden soil, and may be sown in drills two feet apart, the plants to be thinned to one foot apart in the drills. The fruit must be picked by hand, and it is used for pies and sometimes for preserves, by those who like it. We had it growing in our garden for several years, but never found any one who liked it. It is a bad plant to introduce on to a place, unless the berries are all carefully picked in the autumn, as the seed is perfectly hardy, and every one left on the ground will be sure to start up in the spring. It took us several years to eradicate it.

Growing Hedge Thorns from Seed.

Messrs. Editors—How may I succeed in raising our common white thorn from seed, for hedging purposes ? I have tried various ways, but have failed so far from not understanding the modus operandi. Jno. J. Rudisill. *Pulaski, O.*

We are not familiar with the process, since the English thorn has been generally discarded for hedging in this country. Our impression is, that nearly the same treatment is given to the seed as nurserymen commonly give to cherry stones. That is, mix the *fresh* seed (before becoming dry,) with moist sand, and subject them to freezing and thawing through winter. If our recollection is at fault, will some of our English correspondents correct us, and give the best process ?

Gum on the Peach.

Messrs. Editors—Can you give me a remedy that will prevent gum oozing out at the roots of young peach trees ? I have tried leached ashes and lime, but to no purpose, and salt will kill the trees. S. Barnes. *Orwell, Ohio.*

Gum oozes from the peach in consequence of some injury to the tree. If this injury is by the peach worm at the root, it must be dug out with the point of a knife and destroyed. An examination two or three times a year, destroying all that exist, will extirpate them. Ashes assist in keeping them out, after the trees are cleared.

The Chinese Yam—Dioscorea Batatas.

Messrs. Editors—Within a year or two past, much has been published in the agricultural and other papers, in regard to the Chinese Yam, (the Dioscorea batatas,) —some persons asserting that it is a most valuable acquisition to our list of esculents, and that its superiority as a nutritious and palatable food is such, that it is destined to supersede every other potato, &c., while it is equally true there are many well informed men that doubt its being a very valuable acquisition to our country.

Without taking *sides* either way, it is to be hoped that a sufficient number of experiments have been made through the past season in different sections of the country to fully decide the questions relative to its adaptation to our climate and different soils—its productiveness and its value as food. Should the Chinese Yam prove as valuable an esculent as some of its advocates predict, it will, indeed, prove an inestimable boon. That the common potato, (from its liability to "rot, rust and mildew," and its fluctuation in prices,) has become one of our most uncertain farm crops, is a *fact* that can neither be "hushed up, or coughed down." The "why and the wherefore," the "cause and the cure" of the potato malady, are alike shrouded in a mystery that none can solve.

Last year (1855,) the potato suffered but little from *rust*, and less from *rot;* the yield was extraordinary, and the quality good; and it was fondly hoped that the potato had recovered its pristine vigor. This year, thousands of acres were smitten with rust ere the tubers had attained a third of their usual growth; the result of this was, the tubers were few in numbers, and small in size. On well manured and moist soils, the rot, with much of its former virulence, attacked the potatoes, which *has*, and *will*, greatly lessen the otherwise short crop.

Last year at "digging time," the price of potatoes here ranged from 30 to 33 cents per bushel, and many farmers refused to sell at those prices, hoping to realize higher prices in the spring; but when spring came the price was from 10 to 15 cents per bushel, and small demand for them at those low prices. This year's crop has been selling from 60 cents to one dollar per bushel, and scarce at those prices.

In my rambles about the country last August, among the farmers, I saw cart loads of potatoes that had been taken from the cellars, and thrown over the fences to waste and perish, uncared for. Had they been Chinese Yams *possibly*, (if they had not been wanted for planting or other uses,) they might have been kept in the cellars till this time, and still been as "good as new."

The Patent Office Report for 1854, has several pages devoted to the Chinese Yam, accompanied with several very accurate engravings of the vine, tubers, &c., also directions for its propagation, culture, &c.

Last spring I received from Middle Island, N. Y., a small tuber, the size of a bean—afterwards a similar tuber and a cutting of a root; this was an inch long and the size of a small pipe-stem. They were planted about 20th of May. It was several weeks before the tops made their appearance. Drought followed, and the tops made but little progress for some weeks; but the latter rains gave them a good start, and they grew finely till checked by frost about 1st of October. Soon after, I dug them, and found a yam in each hill about ten inches in length, and from one to one and a half inches in diameter at their biggest part; there was also several smaller ones. I think they will make about fifty cuttings, or sets, for next spring's planting. Have not cooked any of them, so shall not give any opinion in regard to their eating qualities.

From our slight knowledge of the plant, good cultivation, with deep and thorough pulverization of the soil, will be necessary to insure good crops.

Hoping to hear from others who have experimented with this newly introduced esculent, I stop here. Levi Bartlett. *Warner, N. H.*

Chufas or Earth Almond.

Messrs. Editors—I send you by express a small package of the new esculent, "Chufas or Earth Almond," recently distributed by the U. S. Patent Office. They were procured by the Agent of the Office in Spain, as will be gathered from the accompanying notice, which appeared on the package I received from the Commissioner of Patents, in May, 1855:

"It grows spontaneously in the light humid soils of Spain, and is cultivated in Germany and the South of France. If planted in May or June they are ready to be harvested in October. They resemble in taste a delicious chestnut or cocoanut, and like them may be eaten raw or cooked. They are chiefly employed for making an orgest, (orchata de chufas,) a delightful, refreshing drink, much used in Spain, Cuba, and other hot climates where it is known. When mashed to a flour, which is white, sweet, and very agreeable to the taste, it imparts to water the color and richness of milk. At Almasero and Albarago considerable attention is directed to the cultivation of this plant, eight acres of land yielding a profit of $3,500 in five months."

The tubers when received, had a shrivelled appearance like those I send you, and I had doubts of their vitality. They were accordingly buried in a heap, and a stake marked the spot until some time afterwards, when on passing, I observed they were peeping above the soil, and showing unmistakeable signs of life. They were then transplanted into drills, and in the fall I harvested several quarts.

These were hung up in a bag in a back room, and subjected to freezing and drying all winter; and in May last I planted 400 tubers in drills two feet apart and one foot distant in the row, in dry sandy loam, and about the middle of September I harvested a portion of them, getting a pint to the hill, and yielding at the rate of some 300 bushels to the acre.

The remainder of them were left in the ground until the last of October, when observing the hens were scratching them up and devouring them greedily, I was obliged to secure them from their depredations immediately. Corn was strewn around to entice them away; but they had got a taste of the almonds, for which they had a better relish than for corn.

Why may they not be raised for fowls, making a better winter feed, for change, than grain, and supplying the place of herbs and worms at that season of the year?

Hogs are very fond of them, and from their saccharine nature, they probably have good fattening qualities.

When first taken from the ground, they are comparatively tasteless; but when thrown into a pile for a few days and allowed to sweat and shrivel a little, they are sweet and delicious, very much resembling a partially dried chestnut. They are said to make a fine beverage when slightly burned and used as coffee.

McCullough, of Cincinnati, thinks them worthy of culture as an ornamental plant, but I have not yet seen a show of bud or flower, although their grass-like foliage of polished green has a pleasing effect, especially when in a border.

Upon the whole I think the plant a fine acquisition, and worthy of a more general dissemination. And when its production and edible qualities are fully known and appreciated, it may yet take its place in the horticultural ranks with other culinary indispensables.

Should any of your readers wish to give it a trial, I can accommodate a limited demand for the tubers. H. B. Lum. *Sandusky, Ohio, Nov.* 20.

Experiments in Manuring for Potatoes, &c.

To the Editors of the Country Gentleman—During the past summer I apportioned a large piece of land with the view of testing the value of certain hand-manures as fertilizers in comparison with stable-dung. The following is the result of some of the experiments, which were conducted under my own supervision, and can therefore be relied on as correct:

The manures used were—guano, soot, superphosphate of lime, potash, nitrate of potash, nitrate of soda, sulphate of magnesia, and stable-dung; all of which were of the best quality that could be procured from town, and consequently the cost of cartage is added, so that the reader may see at a glance the total cost of each, to which I solicit his most attentive consideration:

Plot.	*Description of Manure and the weight per Vergee.*‡			Nett cost.			Expense of carting, mixing & spreading.			Distance of plant to plant.	Total cost.			The produce in pounds pr. vergée.
		s.	d.	£	s.	d.	£	s.	d.	Inches.	£	s.	d.	
1—	Without manure,									16 by 9				4,600
2—	200 lbs. superphosphate of lime,..	8	0	0	16	0	0	1	0	18 by 9	0	17	0	6,400
3—	150 lbs. guano,	14	0	1	1	0								
	100 lbs. superphosphate of lime,	8	0	0	8	0	0	3	0	18 by 9	2	5	6	7,200
	3 quarters soot,	4	6	0	13	6								
4—	300 lbs. guano,	14	0	2	2	0								
	100 lbs. superphosphate of lime,	8	0	0	8	0	0	2	6	20 by 9	2	12	6	9,200
5—	200 lbs. guano,	14	0	1	8	0	0	1	0	20 by 9	3	13	0	7,600
	*11 tons of vraic,	1	6	0	16	6	1	7	6					
6—	*8 tons of stable-dung,	5	0	2	0	0	1	0	0	20 by 10	4	16	0	8,800
	*9 tons of vraic,	1	6	0	13	6	1	2	6					
7—	600 lbs. guano,	14	0	4	4	0	0	2	6	24 by 20	4	6	6	10,000
8—	*14 tons stable-dung,	5	0	3	10	0	1	15	0	20 by 9	5	5	0	9,200
9—	*16 tons stable-dung,	5	0	4	0	0	2	0	0	24 by 12	6	0	0	10,000
10—	*20 tons stable-dung,	5	0	5	0	0	2	10	0	†27 by 24	7	10	0	16,000

On examining the above table, it will be seen, in plot 1, what the land did produce without the assistance of manure. All the ground was in that condition previous to experimenting.

Plot 2.—The superphosphate of lime had a tendency to increase the quantity of tubers, but there were more small ones in this plot than in any of the others. The only other advantage in using this manure is the improvement in the flavor of the potato.

In plot 3, the tubers were large and even. The soot was sown broadcast previously to flat-hoeing. The color of the foliage was changed to a beautiful dark green in a few hours after its application; doubtless owing to the ammonia contained in the soot. In all my experiments on the potato I have found soot increase the size and produce. It is a most valuable manure, and ought to be more generally used by the farmer for most of his crops, either by itself as a top-dressing or in a mixture with earth and dung, but the first is much the best way of using it. I have no doubt that, had the same value of vraic ashes been substituted for the superphosphate, a much heavier crop would have been the result.

Plot 4.—An improvement on Plot 1.

Plot 5.—The vraic and guano did not produce the result anticipated. The disease commenced early in this plot, and, aided by a dry easterly wind, the foliage was destroyed before their growth was perfected. Other circumstances induce me to think that vraic is a manure too cold and wet for the well-doing of the potato. They did not come up so soon as in the other plots, although planted at the same time.

Plot 6.—These were also longer breaking through the soil, and at the period of taking up were half of them diseased. The remainder were excellent in flavor.

Plot 7.—This crop was splendid in appearance and good in flavor. Very few small or diseased. That quantity of guano did not produce so much foliage as I expected. Possibly, it might be owing to the greater distance allowed from plant to plant, to prevent their being drawn. Indeed, when any soil is heavily manured, the distance of the plants is a point of the utmost importance, particularly with a manure like guano, and to the overlooking of this essential point may often be attributed the failure of a crop.

Plots 8 and 9 produced a fine sample.

Plot 10 was remarkably fine and large, with very few small or diseased. The foliage kept healthy to the last. Taking all things into consideration, I have not seen the like this season.

The potatoes manured with sulphate of magnesia and nitrate of soda (about 75 lbs. of each per *vergée*) were large and extremely white, but watery and very bad-flavored. These two manures I should not recommend to be used in the cultivation of the potato. The potash and nitrate of potash, tried in different plots, produced no result worth recording. I was somewhat disappointed in this, as the tuber is a potash-plant, the stem and foliage a lime-plant. However, I intend experimenting with these two manures next season in another way on the same description of crop, and I trust with better success.

Nitrate of Soda on Wheat.

The nitrate of soda had an astonishing effect on the wheat plant, causing a beautiful and luxuriant blade, with large and heavy grain. The change in the color of the plant was perceptible in 24 hours after the application. The quantity used was 50 lbs. per *vergée*, without any other manure, applied in March. The cost of this manure was 21s. per cwt.

Superphosphate of Lime for Root Crops.

Although superphosphate of lime was but of slight service as a manure to the potato, such was not the case when used for the growth of the carrot. I found that 2 cwt. of superphosphate and 2 cwt. of guano per *vergée* produced much finer roots than I got from land adjoining manured with 15 tons of the best stable-dung. Turnips also grew large and fine with a dressing of 150 lbs. of superphosphate and 125 lbs. of guano. These two manures appear quite congenial to the turnip. It is better, however, to apply a larger quantity of superphosphate than of guano, as the latter has a tendency to produce too much foliage.

A piece of land situated near me was, according to my direction (it being in very poor condition) dressed with 5 cwt. per *vergée* of superphosphate, and afterwards sown in yellow-bullock turnips. This has produced a crop that, for size and weight, will not be equalled in Jersey.

Mangold-wurtzel, beet, and parsnips, roots of great value to the farmer, will grow considerably larger on land manured with superphosphate and dung, than with a larger quantity of stable-dung alone; and from observations made during this year on the various crops grown in a large market-garden with different manures, I am certain that superphosphate of lime, judiciously applied, exercises an important influence in the growth of these roots, and will not fail to give a satisfactory return.

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* The vraic and stable manure were carted on the ground for 2s. 6d. per ton.

† The tubers or seed planted were above medium size, and planted whole; the largest size being used only in plot 10.

‡ Four-ninths of an acre.—[Eds.

How to Apply Artificial Manures.

To those unacquainted with the use of artificial, or, as they are sometimes called, hand-manures, I may say that my experience in them leads me to think the following are the best methods:

Guano—*for Potatoes*, in two or three applications, when the young plants are just above the surface, and hoed in—*for Turnips*, sown broadcast and harrowed in before sowing, that the seed may not come in contact—*for Wheat*, plowed in: if guano is sown in March or April, it is found to produce too much straw and light ears, but not otherwise—*for Carrots*, and other root crops, well mixed with the surface soil, by thin plowing, and a good use of the harrow; then digged in.

Soot *for Potatoes*, sown broadcast at the time of planting, and harrowed in: it assists in darkening the soil and produces an earlier crop.

Superphosphate of Lime—*for Turnips* or *for Wheat*, for which it is a valuable manure, should be sown in drills with the seed, but where the drill-system is not adopted, it can be sown broadcast as soon as the land is prepared for the seed—*for Carrots*, and other roots, it may be used in the same way as guano. It is supposed by some that superphosphate of lime, sown in drills with the seed, gives an impetus to the young plant, that it may grow away from the ravages of the black flea (*Haltica nemorum.*) In my experience I never found it a sufficient or even a partial remedy for the evil. Several times this summer I had large beds in cabbage and turnip seeds, manured with the superphosphate of lime. The quantity of seed used was at the rate of 10 lbs. per vergée. In consequence of the frequent failures, I used that quantity, thinking to have sufficient left after the black flea; but, no; three times I saw the beds destroyed in four hours; therefore I question if there is any manure that can force vegetation out-doors to out-grow the ravages of this small but powerful pest.

Bonedust—*for Turnips*, should be harrowed in before the seed—*for Clover*, inch-bones are preferable, plowed in when preparing for wheat. If not done then, bonedust should be substituted, and applied any time during winter, and well rolled in. For any of the root crops, it may be treated in the same way as guano; but, previously to so doing, it ought to be made into a compost with earth, and well moistened, some months previously to using. Further, any manure having volatile salts should be applied during moist weather; otherwise, a loss of the most valuable part is the consequence. J. Levesque, Jr. *Island of Jersey, Oct.* 21, 1856

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Horse Distemper and Heaves.

Messrs. Editors—In a late No. of the Cultivator, there is two inquiries about horse diseases, for remedies for heaves and distemper. There are many things very beneficial, but the most effectual in my knowledge, is to take the lobelia, gathered before frost comes in the fall, dried and pulverized with an equal quantity of salt petre, to be given in his feed twice a week—a large table spoonful each time, for a few weeks, and it will relieve and restore often when a horse is thought to have a disease fastened upon him. Good bright oat or barley straw is the best fodder for preventing this malady.

As for sheep and lambs eating each other's wool. For a remedy rub a little fresh tar on the places eaten, and it has always proved beneficial. It is often done by young lambs in winter season. H. A. *Scipio, N. Y.*

Application of Barn-yard Manures.

Messrs. Editors—I am one of the many readers, that you imagined would be surprised to learn how so good a farmer as Mr. Johnston applies his barn-yard manure. That he raises very fine crops of corn in his way, I can readily believe, because I have seen good crops raised by planting on merely inverted sod, and certainly the addition of manure, in his way, would add materially to the crop; and also because I am confident that Mr. Johnston would not persevere in his plan unless he did raise good crops. At the same time, it does not necessarily follow that his plan is the most economical way of applying manure.

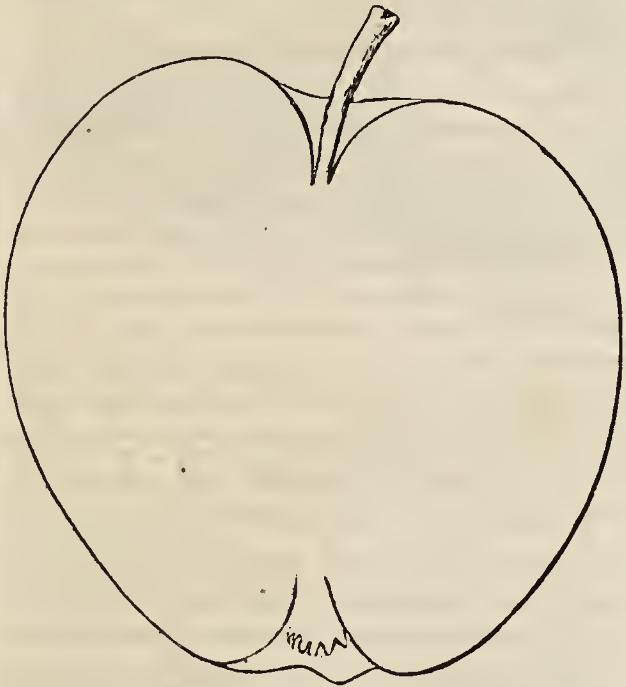
When I commenced farming in this country twenty years ago, I used to heap up my manure, I suppose because I had always done so in England, but for fifteen years I have adopted a different plan, and like our friend, Mr. Johnston, I do not feel disposed to change it until I see my neighbors raise better crops by some other plan. As soon as I have finished spring sowing, I draw my manure out of my yards onto the land intended for corn, taking pains to have it well shaken and evenly spread, and plowed under as quickly as possible.

After speaking of plowing the manure in the bottom of the furrow, Mr. Johnston adds: "where it would be of little if any use in our dry seasons." Now my experience is just the reverse of this; in fact it is on the very account of our dry seasons that I deem it so very advantageous to plow in fresh manure. When I say fresh manure, I do not mean such stuff as we too frequently see dotted about a field, here a load and there a load, which in fact is little better than dry straw. But I mean good solid manure, full of rich juice, which it will be, if properly manufactured in a well shaped and regularly littered yard. Let such manure as this be evenly spread and quickly plowed under, and I maintain, without any fear of being called a theorist, that it is a more economical way of applying manure than to let it lie so long on the top of the ground, "wasting its fragrance on the desert air."

In a sensible letter on this subject in your last publication, subscribed "A Reader," occurs this sentence: "It may be laid down as a universal rule, that stable manure, to be applied in the most efficient manner, should be perfectly intermixed with the soil, at precisely such a depth as the roots of plants go in search of nutriment." Now would not this be a difficult operation? Years ago Jethro Tull, who was styled the father of drill husbandry, made an experiment on this subject in regard to Swedish turnips, which experiment was republished by Cobbett in his English Gardener, in 1829. He proved that their roots must have extended a yard all round; this is laterally; there is no mention of depth. But this was tested with wheat about 25 years ago by Lord Vernon, an account of which I have never seen in print, but I had the fact from his own lips. He had long been urging his tenants to adopt a system of deeper cultivation, but without effect, as his tenants persisted that they plowed already as deep as any roots would go. To settle the point, Lord Vernon put soil into a large barrel, three feet deep, and sowed it with wheat. When it was ripe, he called his tenants together, and had the barrel taken apart, when he convinced them by occular demonstration that the roots had penetrated to the bottom of the barrel, where they had formed a web of fibres. How much farther they would have gone, had the barrel been deeper, deponent cannot say, but it is quite evident that there need be no fear of plowing manure in so deep that the roots of plants cannot search it out. C. B. Meek. *Canandaigua, N. Y., Dec.* 1, 1856.

Western Apples.

The selection of the best varieties of the apple for cultivation throughout the great west, is becoming an object of rapidly increasing importance. The difficulties found in the way of the successful cultivation of other fruits, give the APPLE there greater prominence; and the large cities which are springing up in all directions, and the millions which have already peopled that vast region, are calling for a supply of good fruit not likely very soon to be filled. Our numerous readers there, who may be interested in fruit culture, and those elsewhere who are connected with the business of furnishing fruit trees, or with the fruit trade, may be glad if we devote a small space in a few of our numbers, to figures and descriptions of some of the best or most valuable western apples, or those likely to become the leading sorts. The list will not, however, include such only as have originated there, but will embrace some eastern sorts that have proved especially adapted to western cultivation.



CAROLINA RED JUNE.

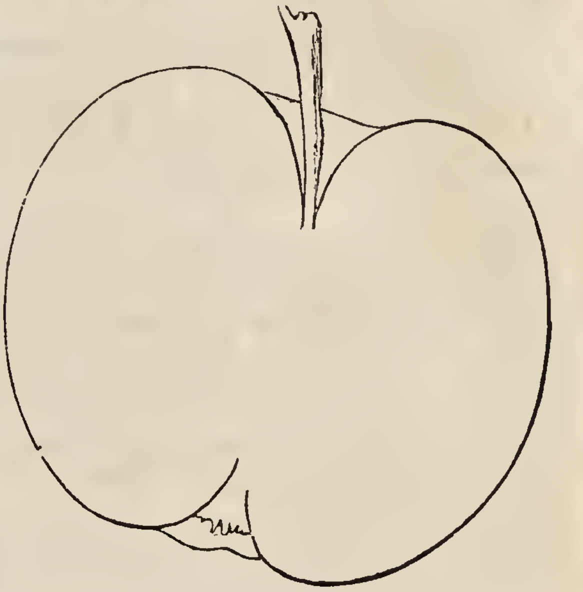
CAROLINA RED JUNE. Size medium, sometimes rather small, oblong-ovate, somewhat uneven, very smooth, scarcely ribbed, tapering to each end, but most to the blossom end; skin with nearly the whole surface a deep red approaching a purplish red,—where much shaded, a whitish skin; stem small and from one-fourth to three-fourths of an inch long, in a small and narrow cavity; calyx in a small and wrinkled basin; flesh quite white, fine-grained, tender, rather acid, moderately rich. It is quite early, and continues to ripen for several weeks. It is remarkable for its *keeping* qualities after ripe—a proof of which was furnished by the fact that several ripe specimens sent by J. C. TEAS, of Indiana, all arrived sound after a long journey.

It is believed to be identical with the *Blush June*, although regarded as different by some, on account of the former being striped and the latter not. Some varieties, however, (as the Fameuse, to which this is evidently allied,) are variable in this particular, being sometimes distinctly, and at others quite obscurely striped.

The Carolina Red June has proved the most valuable early apple for Northern Illinois and adjacent regions. It is a fine erect grower, very hardy, and bears young and abundantly. A young tree loaded with its showy crop is a beautiful object.

This variety does not appear to be noticed in Elliot's Western Fruit Book, although fully described two or three years previously in the American Fruit Culturist.

It was introduced into the West from North Carolina.



SWEET JUNE

SWEET JUNE. Known by this name in Indiana, Illinois, and Wisconsin, and apparently the same as the *Summer Sweet* of Southern Ohio, and as the High-top Sweeting of Massachusetts.

Size, usually rather small; nearly round, slightly flattened at the ends, smooth, nearly regular, pale yellow when ripe; stem rather long and slender, in a small, even cavity; basin even, small and shallow; flesh fine-grained, sweet, not very rich, "good." The tree is of upright growth, and is a young, uniform, and profuse bearer in all localities, which render it a valuable sort.

(To be continued.)

Cutting Grafts.

There is no better time to cut grafts than at the commencement of winter. In cutting and packing them away, there are some precautions to be observed. In the first place, let them be amply and distinctly labeled, as it is very annoying to find the names gone at the moment of using them. For this purpose they should be tied up in bunches, not over two or three inches in diameter, with three bands around each bunch—at the ends and middle. The name may be written on a strip of pine board or shingle, half an inch wide, a tenth of an inch thick, and nearly as long as the scions. This, if tied up with the bunch, will keep the name secure. For convenience in quickly determining the name, there should be another strip of shingle, sharp at one end, and with the name distinctly written on the other, thrust into the bundle with the name projecting from it. If these bunches or bundles are now placed on ends in a box, with plenty of damp moss between them and over the top, they will keep in a cellar in good condition, and any sort may be selected and withdrawn without disturbing the rest, by reading the projecting label. We have never found sand, earth, sawdust, or any other packing substance, so convenient, clean, and easily removed and replaced, as *moss*, for packing grafts. It is needful however, to keep an occasional eye to them, to see that the proper degree of moisture is maintained,—which should be just enough (and *not a particle more*,) to keep them from shriveling. They must, of course, be secure from *mice*.

Plum grafts, which are sometimes injured by intense cold, are generally better if cut before the approach of the severest weather, and securely packed away.

Good Seed—Where to Look for it.

It seems to me that sufficient importance is not given to the great fact, that seeds ripened in a cold climate are more perfect than those ripened in a warmer region.

Not only is there more excitibility and consequently greater germinating powers in seeds ripened in a cold climate, but the *habit of the plant* acquired in the cold climate gives it a greater seed-producing and seed-perfecting power than if grown in a warmer climate.

In the cold regions nature exerts her energies in the production of the seed; in the warm climate she glories in the size of stalk and leaf. Indian corn, which near Montreal, can be brought to produce one hundred and fifty bushels to the acre, has a very small stalk and leaf, compared with the same plant grown in Georgia, where great skill in cultivation can scarcely bring the production above 50 or 60 bushels to the acre. In the Northern States and Canada, corn may be planted in hills so close that 5,700 hills to the acre, with three stalks in the hill, producing on an average 1⅓ ears to the stalk, with entire success; while in Georgia the production on land of the same quality will be about 2,500 ears to the acre, taken from 2,500 plants, standing singly, in hills 5 feet by 4 apart. The grain from the northern field will weigh from 2 to 3 times as much per acre as that from the southern, whereas the plant, without the grain, in Georgia, will weigh much heavier than in Vermont.

The annual crop of Indian corn in the United States averages not less than eight hundred millions of bushels. If the seed should be procured some two or three degrees of latitude north of the place of planting, and planted in hills or drills at a distance adapted to the habit of the plant in its northern clime, allowing for a moderate change of habit, the crop would probably be greater, by one-eighth—or one hundred millions of bushels. The average crop of wheat is about one hundred and forty millions bushels. Well selected seed taken from the colder climate would enlarge it some twenty millions. Oats are grown to the amount of one hundred and seventy millions bushels. This crop might be increased some 20 or 25 millions by the same means.

And so of other grains and most root crops. From one hundred to two hundred millions dollars, the people of this nation might add to the value of their food crops, by an expenditure for the best seed, scarcely exceeding one per cent. on the increased amount; and this merely a transfer from one set of farmers and planters to another.

The railroad interest, too, would participate largely in the benefit of this annual transportation of seed from north to south, not alone by freight on the seed, but also in transportation, in many instances, from south to north and from west to east of the augmented surplus resulting from the use of superior seed. The other modes of transportation would also come in for a share of the benefits to accrue from the general adoption of this plan for augmenting our crops.

As some of your readers may need facts to convince them of the superiority of a cold climate to perfect the seeds of our food-producing plants, I will give the result of my examination of the U. S. Census returns of 1850, taken as to crops for the year 1849. This does not give all the difference which a series of years would show in favor of the colder States, as the crop of the north-western States that year was smaller than for many years before and after. But from those returns I have made, and I give below the average crop per acre of the cereals for the cold States and the warm States, as also of the three intermediate States, Delaware, Maryland and Missouri. The cold States embrace all northward of Delaware, Maryland, Kentucky and Missouri, and the warm States all the others except the three Middle States above named:

Average bushels per acre of

	Corn.	Wheat.	Oats.	Rye.
The Cold States, ...	31 1-7th	12⅓	26 1-5th	15½
The Warm States, .	18	8⅔	14⅔	9
The Middle States,.	25⅔	11⅔	22⅓	not given.

A writer, Hamilton, in the Nat. Intelligencer of June 1855, whose article is copied into De Bow's Review for August of that year, gives a table of the productive industry of the different sections of our country, based on the Census of 1850, in which table, among other similar deductions in favor of the cold States, he makes the following, proceeding regularly by sections from south to north:

1. That the farms diminish in size; that they increase in proportion of improved land; that the cash value regularly increases, irrespective of density of population; that the production of Indian corn and wheat increases regularly from south to north; that the productive industry of the U. S., per capita, follows the same law; and that the density of population and the ratio of increase are of course favorably influenced for the cold States by these controlling elements. J. W. Scott. *Castleton, N. Y., Nov. 27.*

* * *

Banking Up Permanently Against Trees.

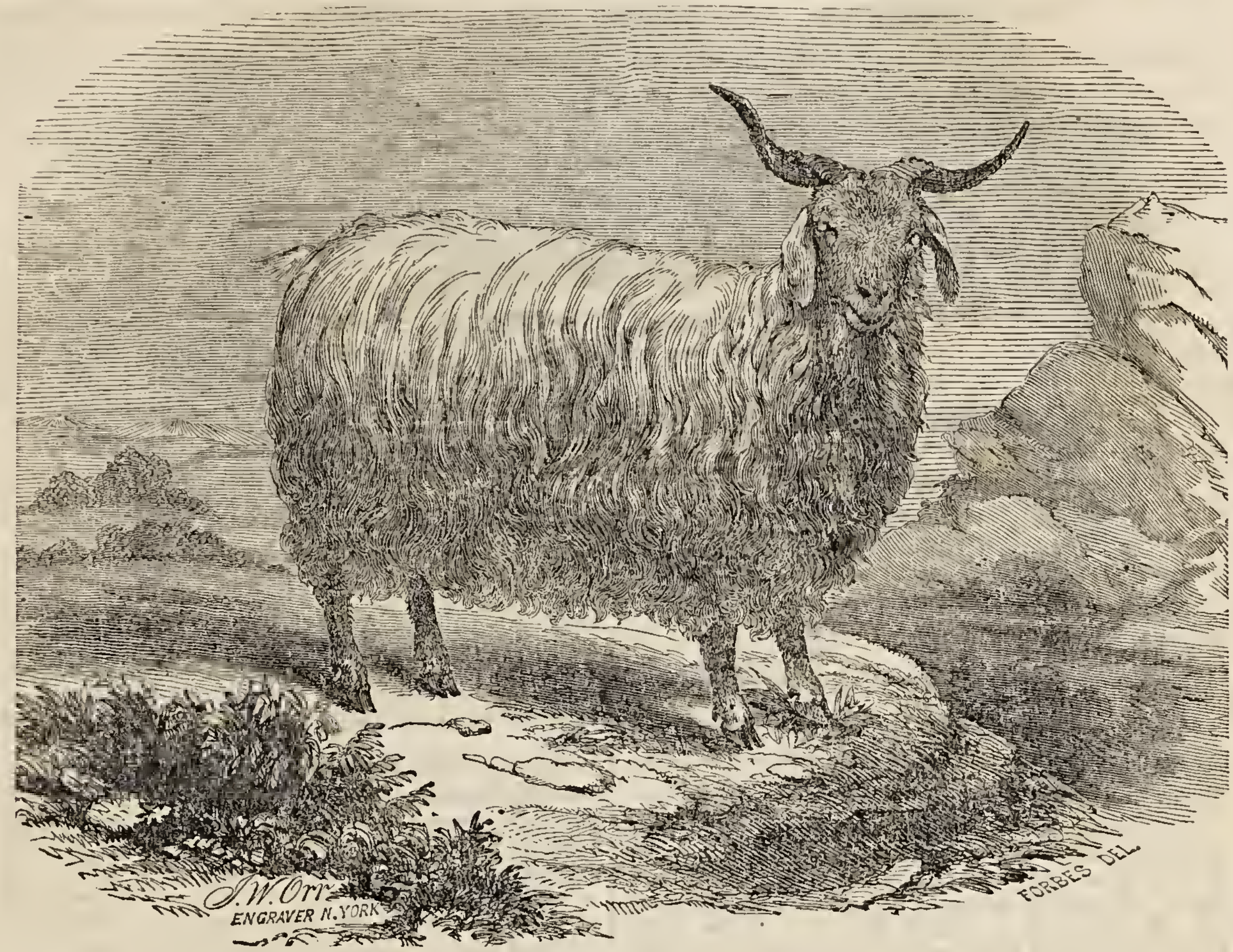
Occasions often occur where it is desirable to make permanent embankments over the roots of trees, as in filling up hollows in grading, &c. We receive frequent inquiries as to the amount of injury likely to be sustained in such cases. We have seen fruit and other trees, twelve or fifteen years old, where the surface had been raised two feet, continue to thrive and grow well. The soil however was of a light gravelly character, and not such as to keep the bark, long inured to light and air, in so close and damp a condition as would have resulted from a more compact soil. The roots, although deeply buried, had still a fine bed of rich earth to spread themselves in; and no doubt they soon sent up fibres into the new earth above.

In all cases where it becomes necessary to embank with heavy soil, we should recommend placing small stones or coarse gravel next the tree, which will give both air and dryness; and a layer of small stones on the old surface, covered by inverted turf, would tend to the same result, yet it would be attended with more labor and probably be less useful, than the portion piled immediately in contact with the trunk.

* * *

Bee-houses not Necessary.

Editors Co. Gent.—In the last number of your paper I noticed a request from a Mr. Case of Troy, Bradford Co., Pa., for a plan for a bee-house; among other things, to be large enough to hold from twenty to twenty-five swarms. Various plans have been tried in this neighborhood and all have failed. Let me recommend to Mr. Case to abandon the idea of a bee-house entirely. Depend upon it, he will not succeed. The bees become too numerous, and consequently require too much honey to be kept on hand for winter food. And not only so, but a bee-house of a few years standing becomes a *pest* to a neighborhood. The bees become so numerous and strong, that not a hive within two miles can be kept from being robbed by them. I would recommend to Mr. Case, Kelsey's Alternating Bee-hive, patented May 9th, 1849; and instead of one house holding twenty swarms, have those twenty swarms separately housed in twenty boxes. D. S. *Pennsville, Pa.*



Female Cashmere Goat.

The property of Richard Peters, of Atlanta, Georgia, imported during the year 1849, from Turkey in Asia, by J. B. Davis, M. D., of South Carolina. Live weight, 102 lbs.; weight of yearly fleece, 4¼ lbs.

Three Recipes for Cakes.

[We can recommend the following from personal trial. Eds. C. G.]

Silver Cake.—Stir to a cream one cup of butter with two of sugar; add the whites of six eggs beaten to a stiff froth, one cup of milk with one-half a tea-spoonful of soda dissolved in it, and flour so as to make it as stiff as pound cake. With the flour stir in one tea-spoonful of cream tartar. Flavor as you please with lemon, nutmeg, or rose water.

Gold Cake.—Stir to a cream one-half a cup of butter with two of sugar; add the yolks of six eggs well beaten, and, if you like, the whole of another; then add one-half a cup of sweet milk, with one half a tea-spoonful of soda in it. With the flour put in a tea-spoonful of cream tartar. This should be as stiff as cup-cake. A tea-spoonful of cloves, one of cinnamon, and half a nutmeg, with raisins or currants, or both, is considered by some an improvement.

Measure Cake.—One cup of butter, two of sugar, three eggs, one-half a tea-spoonful of soda in a cup of milk, one tea-spoonful of cream tartar, and five cups of flour. Stir the butter and sugar to a cream, add the eggs, the whites and yolk beaten separately; then the soda and milk, and lastly the cream tartar and flour. Flavor as you please. Bake in small tins or in a loaf. A. A.

Orange and Christina Melons.

Considerable has been said pro and con, about the "Orange Watermelon." I have had two years experience with its cultivation—and also the "Christina Melon." They have proved equal to all that has been said in their favor. Rich and luscious, they have won a good name by all who have tasted them.

Any person wishing seed can be supplied by sending six cents in P. O. stamps, and I will send enough to begin with. But all who raise vines ought to know they will mix, and to keep pure must be planted twenty or more rods apart. Thousands of dollars would be saved every year if proper care were taken in raising seeds. A. S. Moss. *Fredonia, N. Y.*

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Hardening Tallow for Candles.

Messrs. Eds.—How can I harden tallow that is rather soft, so as to make hard mould candles? L. C. *Monroe Co., N. Y.*

We have been informed that a small portion of alum or of rosin, (the former preferred,) will harden tallow for candles, but we cannot give the process. Will some of our correspondents, skilled in housewife matters, please give us the necessary information, and likewise say whether such candles are valuable?

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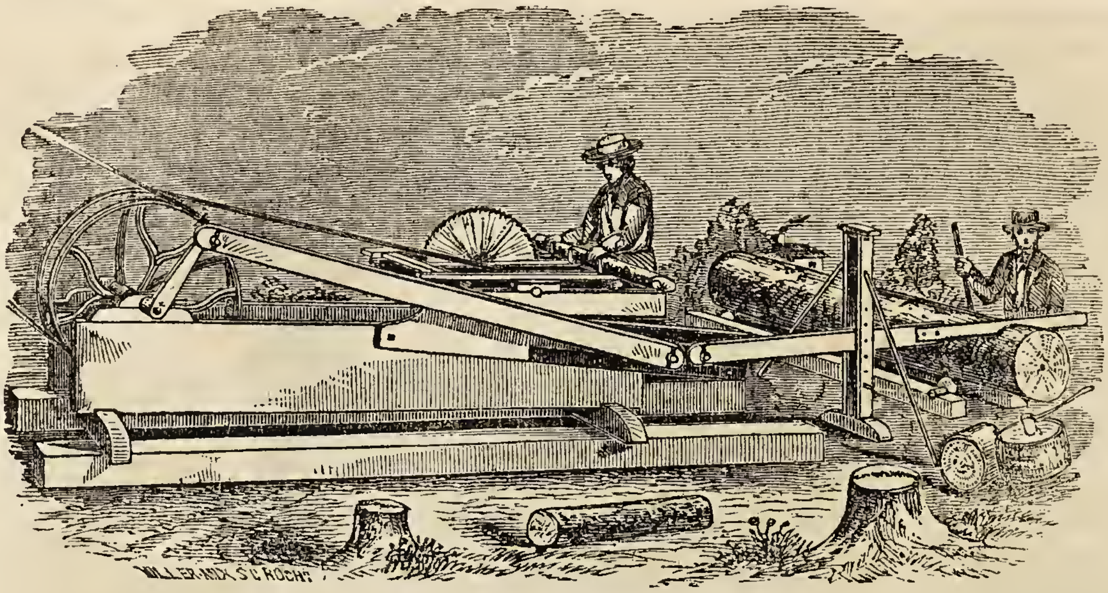
What is the worst kind of fare for man to live on? Warfare.



EMERY'S DRAG CROSS-CUT SAW MILL.

Emery's Drag Cross-Cut Saw Mill.

Having received several inquiries for a horse-power saw mill for sawing wood, we have obtained the above illustration, which is described as follows:

It is intended for cutting off logs of any size for the purpose of lumbering, for making shingle bolts, or for sawing up into fire-wood. It is a distinct machine of itself, and may be driven by any power by means of a band. The logs are rolled upon some ways, which have rollers and a small truck, by means of which the logs are rolled forward for each cut made by the saw. The machine has a sett of slides with a cross-head, carrying two wrist-pins, one of which engages the connecting rod from the crank, while the other engages with the shaft of the saw itself. This moves at the rate of about 100 revolutions per minute, and is capable, with the power of one horse, of making from 20 to 30 cord cuts per day, or what is called face cord cuts, 4 ft. by 8. They are extensively in use in the timber section of Michigan, Ohio and Kentucky, and coming rapidly into use generally.

The cut above also shows an additional attachment which is often added, and is used for a circular saw mill for cutting small wood or ripping boards, &c., for fencing and building purposes.

The above machine was awarded the first premium for horse-power use, at the late New-York State Ag. Fair at Watertown.

Price of the entire machine, including saw,	$40·00
" when combined with the circular saw, table, &c.,	40·00
Making for both,	$80·00

Emery Brothers, of this city, are manufacturing them, and will give any further information which may be desired.

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Oil-Producing Seeds and Plants.

Perhaps the following items may prove germs of some future improvements in our systems of rotation or lists of profitable crops.

Rape, which is very extensively cultivated in France, Belgium, and Holland, for the seed, has also been profitably grown in England for the same purpose. The experiments which have been made in raising it at Boxted Lodge, county of Essex, show that the cultivation of rape for seed could be *profitably* prosecuted. During this season about £20 (or nearly $100) per acre, has been realized. Whether it could be profitably raised in *this* country can only be determined by repeated trials, which, to be safe, should be on a small scale.

The fact is not very extensively known, we presume, that the Swedish turnip (ruta baga) produces nearly the same amount of seed as the rape plant, and that the seed of the former yields nearly as much oil as the seed of the latter. While the price of turnip seed is as high as it is at present, there will be no substitution of it for rape seed; but in a change of circumstances this fact might be turned to some good account.

Between Dunkirk and Paris, the white poppy appears to be gradually taking the place of rape as an oil-producing plant. It appears that the quantity of seed from the white poppy exceeds that from the rape plant, while the per-centage of oil from a given weight of seed is also higher—*being about double that obtained from flax-seed.* If the seed of the white poppy should prove equally rich in oil, when grown in this country, the enterprise of those who should first venture upon its cultivation might secure an abundant reward. In addition to its utility, a field of white poppies in flower is said to be an object of remarkable beauty.

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Selecting Corn and Potatoes for Seed.

"Like produces like," is an axiom often quoted in favor of the selection of the best seed for planting. Where a new variety—a *new* individual is to be produced, nothing can be more true. Every time, for instance, that *seed* is planted—(and by "seed" we mean the ripened grains produced from flowers, as with corn, wheat, and turnips)—a *new* and *distinct individual* is afforded from every seed planted; and if these seeds are liable to vary in their products, (as with the *apple,*) a *new variety* is produced by each. Some vary much less than others. The different sorts of wheat, for instance, produce the same when sown, for many successive generations, with scarcely a shade of variation. A very slow change, however, does actually take place, and a few rare plants may be found, among the millions in a large field, which have varied considerably from the seed sown. By selecting these rare seeds only, planting them, and then observing the same course with their product, new and distinct varieties are obtained.

The same result takes place by the careful selection of the seed of corn. By continually selecting the ears soonest ripe, early sorts are procured; by choosing the largest ears only, large varieties are obtained; and by taking those exclusively where several ears are found on a stalk, prolific sorts become permanently established. It is much easier to select seed corn, in this way, than seed wheat; and the practice should be adopted by every farmer.

Reasoning from analogy, many suppose it to be equally important to select *large potatoes* for "seed." But a great point of distinction is here overlooked. In planting a crop of potatoes, *new* individuals are not yielded. The *tubers*, which are only an enlargement of that portion of the stem beneath the soil, furnish eyes or buds, and the *same* variety or individual is increased and extended, but no new one is produced. A pink-eye potato was in the first place obtained from seed taken from the ripened balls. It thus became a distinct variety or individual. But the operation of cutting and planting the tubers, is only an extension or multiplication of the *same* individual—the result is still pink-eye potatoes, without the slightest shade of variation—no more than if the original plant was allowed to grow without disturbance, until it had become a large stool of many plants. An Isabella grape may be multiplied by *layers*—but every plant thus produced is only a *portion* of the parent. It can never, by this process, become a new sort. The same result takes place in budding or grafting. A Baldwin apple tree may bear ten thousand buds. These ten thousand buds may be taken from it and each inserted into a separate stock or seedling, and thus ten thousand Baldwin trees be obtained. But every one will be only a *portion* of the same original tree—and no variation whatever will take place in any point of character from the parent. But if *seed* from the apples be sown, new individuals, new varieties are at once obtained.

For the reasons already given, it is far less important to select large potatoes for planting, than to make selections of the best ears of corn. In one point of view, it is of no consequence whatever, whether large or small potatoes are planted. We know several skillful cultivators, who have supplied the market for many years with the largest and finest potatoes, who say there is *no difference whatever*. We think, however, there *may* be a difference; and it sometimes becomes of some importance. Small potatoes, for instance, under ordinary management, will yield stalks more abundantly from their more numerous eyes; and the product will consequently be more in number, and smaller in size. Again, when the ground is very dry, large tubers will furnish a longer supply of moisture to the young plant, giving it a more vigorous start. A variety, likewise *may*, by long continued bad cultivation, become constitutionally enfeebled, just in the same way that a tree may become stunted, and require some years and favorable influence to restore it. We think, however, that the result is very small or very rare, so far as the potato is concerned.

On the whole, therefore, while we would urge, as of great importance, the practice of choosing the largest or earliest ears of corn for seed (and in fact the best of any grain or seed produced from flowers) we are compelled both by theory, and from the practice of many experienced and skillful cultivators, to regard this practice as relates to potatoes as of far less importance; and by avoiding too thick a growth of stalks, or a dry soil, of very little consequence whatever.

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Willis' Improved Stump Machine—Manufactured at Orange, Mass. The above machine, which seems to stand without an equal, for power and speed in pulling stumps, has a wonderful sale abroad as well as at home. We are told the inventor has just answered an order for sixteen for the Valparaiso market; these, together with others, make some fifty or more shipped for that region within one year. It argues well for those semi-barbarous regions that they are ousting their stumps. Progress.

Purely Bred Animals.

Mr. R. A. Alexander of Woodburn Farm, has written an interesting letter to the Louisville *Journal* on the advantages of breeding from purely bred animals. He aptly defines

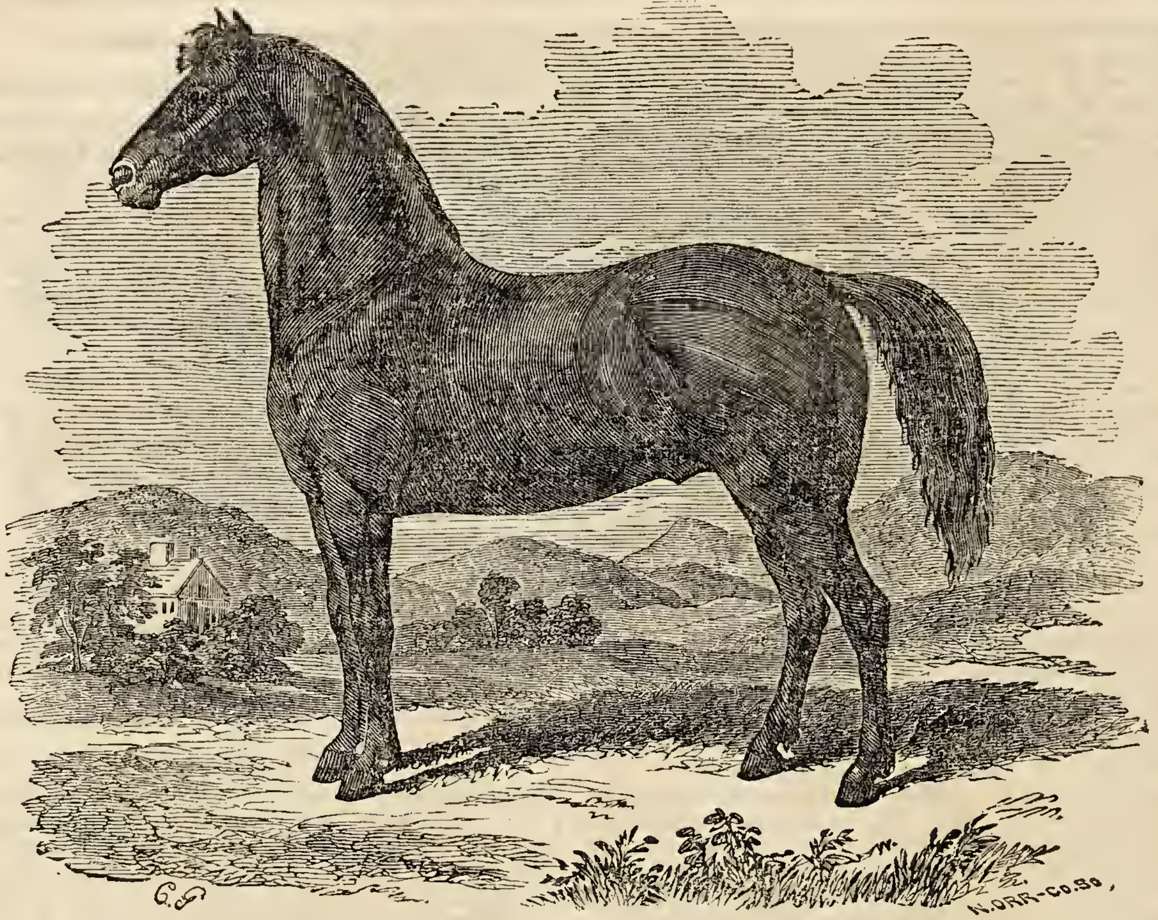
"An animal as purely bred which itself possesses all the points and characteristics of the breed to which it claims to belong, which has inherited the points and characteristics from its progenitors, male and female, and which we have every reason to believe, will transmit them to its offspring."

The value of the pedigree of an animal, as he very justly remarks, "can only be duly estimated when we know whether or not the qualities we require in that animal, of whatever sort or breed it may be, have descended through several successive generations, until they may be supposed to be inherent in that particular family. An extended pedigree may, therefore, be considered of little value unless we are satisfied that the long list of names includes none but good animals; and were more attention given to this circumstance, breeders might not unfrequently save themselves much disappointment."

He then goes on to speak of the importance of breeding common stock to good bulls:—

"That an animal, belonging to a family bred for many successive generations with a view to perpetuating certain good qualities, should transmit these qualities to its offspring, is by no means extraordinary, but the marked change produced by a single cross of a purely bred animal on one of inferior breeding might well surprise one unaccustomed to observe such things, and can only be accounted for, by supposing that the parent of inferior breeding, having no marked characteristics inherent in the family in which it belongs, and therefore no particular type after which to breed, yields in this respect to that (parent) of which the characteristics are distinctly marked, and the offspring is, therefore, found to resemble most strongly the well-bred parent. The improvement, thus effected, is frequently so marked as to have led to the expression, "that the first cross is the best," by which is meant that the offspring from the first cross is superior to the offspring of the second or third cross, or that the half-bred animal will be found superior to that having three-fourths or seven-eighths of good blood. To this, however, I cannot agree, as I am strongly of the opinion that each succeeding cross with the purely bred animal will cause an improvement, though, as there is not the same room for improvement after the first cross, it cannot be so easily observed.

"The high state of improvement to which well bred animals have been brought, would render it most desirable that this class of stock should become generally distributed throughout the country, but the skill and unceasing care necessary to breed and keep them up in perfection, the time that would be required to substitute them for the numerous varieties now found throughout the country, to say nothing of the expense of acquiring the purely bred stock in the first instance, must almost preclude the idea that such can ever be the case, and probably here, as in England, the rearing of this sort of stock will be confined to comparatively a few breeders. We are, therefore, constrained to look to some other mode of improvement, and none so strongly recommends itself as the crossing the females of the common stock of the country with the males of the improved breed. The well ascertained fact that the sire has more influence in the shape and general appearance of the progeny than the dam, would suggest this plan of improvement, and, when males of high character and breeding, such as are above termed purely bred animals, are used for this purpose, the improvement is so rapid as to leave little to be desired by the enterprising farmer."



The Original Justin Morgan Horse.

Mr. Linsley, in his interesting "History of Morgan Horses," which we noticed last week, gives the above as a "faithful representation" of the original Morgan Horse, from which the whole race of Morgans have descended. Its general correctness is certified to by several persons now living, who were familiar with him. The true history of this horse is undoubtedly as follows: He was foaled in or near Springfield, Mass., in 1793, and taken, when two years old, by Mr. Justin Morgan, by whose name he was afterwards known, to Randolph, Vt., where he was owned and kept by Mr. Morgan until Mr. M.'s death, which occurred in 1798, soon after which he passed into the hands of Wm. Rice, of Woodstock, Vt. His future life and exploits, or such of them as could be collected at this late day, are graphically and we doubt not correctly described by Mr. Linsley in his book. He lived, though hard-worked most of his life, to the age of 29 years, having died in Chelsea, Vt., in 1821.

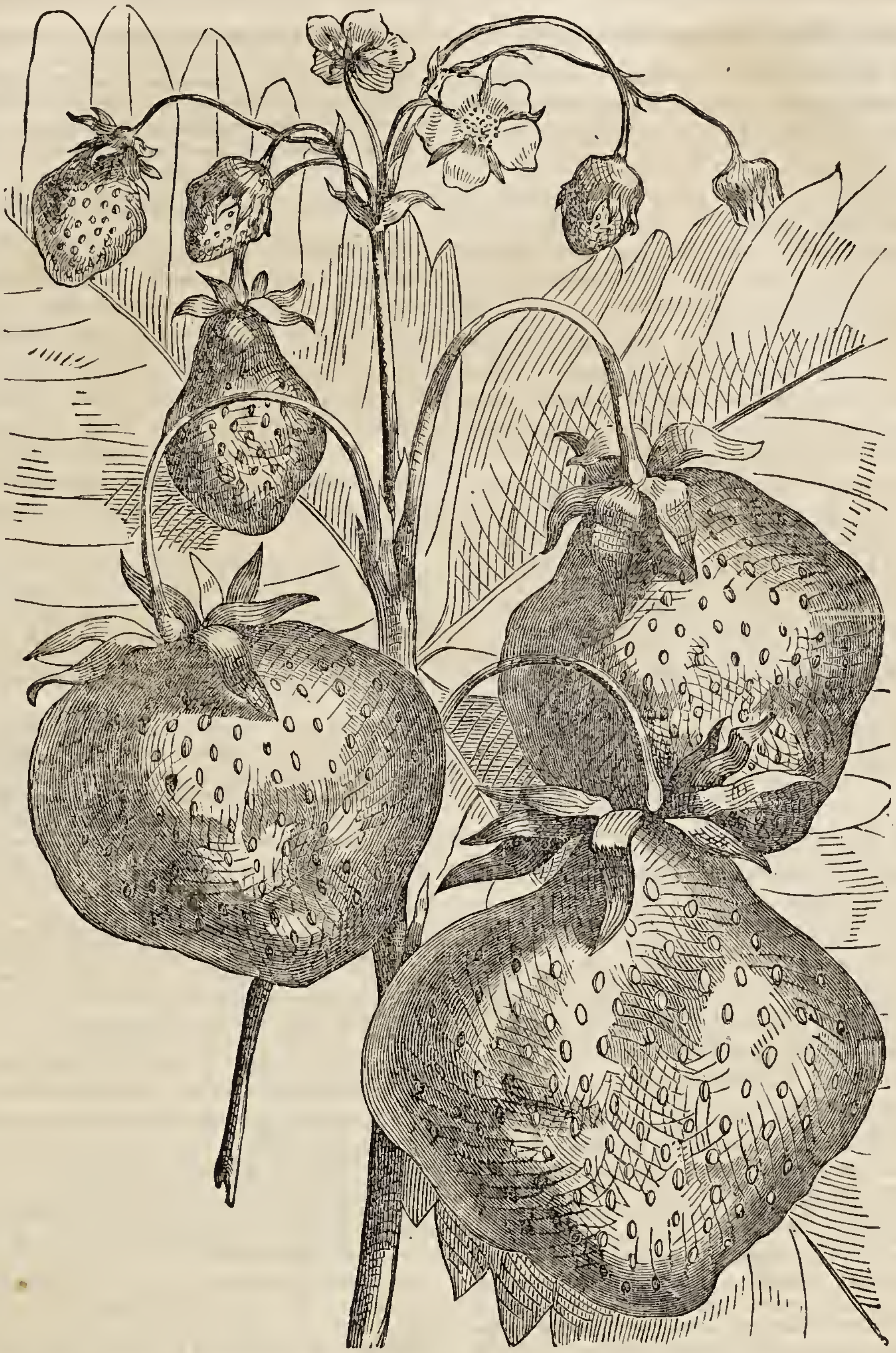
That the sire of the Justin Morgan horse was a horse known as "True Briton or Beautiful Bay," there can be no doubt. The sire of True Briton, there is every reason to believe, was the imported horse "Traveller," and his dam, according to an advertisement which Mr. Linsley has found in the Conn. Courant of 1791, "De Laney's imported racer"

Morgan Horses: A Premium Essay on the Origin, History, and Characteristics of this Remarkable American Breed of Horses; Tracing the Pedigree from the Original Justin Morgan, through the most noted of his Progeny down to the Present Time. With Numerous Portraits. To which are added Hints for Breeding, Breaking and General Use and Management of Horses, with Practical Directions for Training them for Exhibition at Agricultural Fairs. By D. C. Linsley. New-York: C. M. Saxton & Co.

After considering the most esteemed races of the Horse, and the kinds of service to which they are adapted; the difference between that service as it has been and is at the present day, and the kinds of Horses now most sought for, Mr. Linsley argues that the Morgan furnishes the breed peculiarly adapted to our wants on the road and for general use. He then traces out the origin of this breed, quoting largely from the correspondence on the subject which first appeared in our columns, as long ago as 1841, and summing up from it all that will probably ever be known on the subject. The remainder of the volume is well summed up in the title page above. The illustrations are numerous. Every owner of Morgan horses should have this book.

Report of the President of the Virginia State Agricultural Society, made to the Farmers' Assembly at the First Annual Meeting, held in the city of Richmond, Oct. 28, 1856.

Hon. Ph. St. Geo. Cocke has sent us his report at the conclusion of the Virginia State Society's first year under its new constitution,—in which the main novelty is that an elective representative assembly is provided for, chosen by counties and districts, to take the place of the Society's ordinary mass meetings. Other States besides that for which this report was intended, may perhaps learn something from its dignified views on the influence the farmer should exert and the part he should take in public affairs; from its strong stand in behalf of popular education in general, and, finally, from its able advocacy of and well digested plans for a system of higher Agricultural Education for the farmer in particular. How much in earnest Mr. C. was in pressing these points upon the Assembly, may be inferred from the fact already published in our columns, that on conclusion he offered as his subscription towards endowing an Agricultural College in connection with the State University, a check of $20,000.



Peabody's New Hautbois Seedling Strawberry.

The engraving can convey but faint idea of the beauty of this truly wonderful plant. I produced this new seedling, by crossing the Ross Phœnix with a wild Strawberry of Alabama. It is hermaprodite in its character, producing fruit without the aid of an impregnator, being a capital impregnator itself for pistillate varieties. It is a hardy, vigorous grower, withstanding both cold and heat without injury. In good soil the vine grows to an enormous size—we have single plants that cannot be covered with a half bushel measure. The fruit is borne upon tall stalks, suspended on stems from three to five inches long, attached to the calyx by a polished coral-like neck, without seeds, there being very few seeds in the berry. It is of singular and beautiful form, somewhat irregular, and sometimes compressed, of the largest size, frequently measuring seven inches in circumference; flesh firm, melting and juicy, and of the most exquisite pine flavor, requiring no sugar for the dessert, rivaling the far-famed Burr's New Pine. It is a prolific bearer, opening its blossoms during the mild days of winter, and perfecting its fruit as soon in the spring as the weather will permit. When fully ripe, the color is of a rich, dark crimson. But its rich color, beautiful form, magnificent size, and exquisite flavor, are not all its recommendations; through its firmness and lack of acidity, it bears transportation better than any strawberry ever yet introduced. We have produced many hundred seedlings and have in cultivation all the fine varieties of Europe and America, but have never seen anything to compare with our new *Hautbois Seedling.* C. A. Peabody. *Columbus, Ga.*

Winter Wheat in New-Hampshire.

Messrs. Editors—In the Co. Gent. of 29th of May, I gave a short sketch of growing winter wheat in this town, (Warner, N. H.) In the summer of 1852, a son of one of our farmers was in Western New-York. On his return he brought in his valise thirteen quarts of white Flint Wheat. This was sown on one third of an acre of "pine-plain land." The land was in a favorable condition for a crop of wheat—seed sown about the 10th of Sept., and yielded the next harvest sixteen bushels of prime wheat, (48 busheles per acre.) The crop was readily disposed of at three dollars a bushel for seed. The yield of which the next year was generally satisfactory, although the crop was lessened by the early and severe drouth of that season.

A much greater amount was sown that fall, 1854, The yield was good. In the autumn of 1855 a still greater amount was sown. This was the best crop raised here; many pieces yielded twenty bushels to the bushel of seed sown. This fall a much larger breadth of land was sown. It has never looked so well in the fall as this year. What was raised in this town last season will save us thousands of dollars that otherwise would have gone for western flour. The four successive crops that have been raised here, upon an average have proved as sure—yes, more so, than either corn, potatoes, or spring wheat. Yet what has been grown here, has been rather experimental, because our farmers had no knowledge of growing winter wheat six years ago. Then they would as soon have thought of attempting to grow the lemon or orange, as winter wheat; for we have scores of farmers here that never saw a field of it previous to 1853. The advantage of raising winter wheat here, over that of spring sown, are, that it can be put in when the ground is in better condition, than it is in the spring generally. From its earliness in ripening it has escaped the ravages of the weevil or midge; it puts the straw beyond the reach of rust, that is frequently so injurious to the later ripening spring wheat—besides it has matured before being much injured by drought, and it makes a much whiter, higher priced flour, and better bread.

The last spring was wet, consequently farmers were late in sowing their spring wheat. Just as it was heading out a severe drought and warm weather came on; this checked the growth of the straw, shortened the head and pinched the grain, so that taking our whole crop together it did not produce four bushels for the bushel of seed sown. The highest amount that I have heard of was eight bushels to the bushel of seed—the lowest one a half bushel. But as before said, the entire yield will not average four bushels per bushel of seed, and much of this light crop was sprouted in the field, during a long spell of rainy weather, while all the winter wheat had been previously harvested in good weather and condition.

Winter wheat has been grown here successfully, on interval and other low lands, where the raising of spring wheat, from its liability to the midge or rust, has been abandoned for years.

If the farmers, professional men, merchants, mechanics and others, *here*, can so successfully grow winter wheat with certainty and profit, we can see no good reason why the thing cannot be done in all other sections of New-Hampshire and New-England.

We presume there will occasionally be seasons in which the crop may be very light; so it is with corn, potatoes, and spring wheat—that was emphatically the case here the past season, with the two last named crops, but our farmers "will try, try again," next year.

We hear of some few nearly entire failures of winter wheat here, within the past four years, but we think the wheat was to be *commended* for not doing any better under the treatment it received.

The White Flint wheat has been the kind mostly grown here, but one or two bearded varieties have been raised with about the same success as that of the bald or awnless. L. Bartlett. *Warner, N. H., Dec.*

Notes from Onondaga County.

The Concord Grape.—Two or three years ago I planted a "Concord" grape. It yielded me about a dozen clusters of fruit the past season. I am much pleased with it. The berries began to color the last day of August, and by the 20th of September were dead ripe. In appearance it resembles the Isabella, except that the berries are round in shape, and not quite as large. Maturing during the warm season, the "Concord" is a higher flavored grape than the Isabella. I think it a superior variety, and destined to supplant our old favorite.

Wine from Catawba Grapes.—Dr. B. F. Green, of this city, from a few Catawba canes, made thirty or forty gallons of wine, of a very fine quality last fall. The only ingredient added to the "pure juice," was a small quantity of sugar. It affords a very palatable beverage now, and will, of course, improve for a year or two.

Horse-Racing at Ag. Fairs.—I am glad to see the agricultural press coming "down" upon the pernicious practice of introducing horse-races at the county fairs. The legitimate show and fair must decline, if the race-course is to become a permanent institution. I go in for a divorce—peaceably, and by force of public sentiment, if it can be—forcibly, and by legislative interposition, if necessary. If trotting and racing are to come into fashion again, let them be placed upon an independent footing. It is no argument to urge that they *pay*, and that county societies are flourishing pecuniarily in consequence. You might as well undertake to support the church by licensing the vices of the metropolis. Nor is it a tenable argument that woman, "lovely woman," lends herself as a figure in these equestrian diversions. *No well-bred lady does so.* Let *that* be understood, and the evil can be soon abated.

Vegetables Shipped West.—Large quantities of potatoes were shipped from this county in November, and cabbages (in the form of *saur kraut*) and onions were *exported* to Cincinnati, the severe drouth in the Western States having cut short the supply of garden vegetables. Onions, purchased here for fifty cents a bushel, brought five dollars per barrel on the Ohio.

Western Investments.—One of our bank cashiers says that a million of dollars has been invested by Onondaga people in western land speculations, during the past year. How long can we stand this drain?

Good Crop of Barley.—A drain-dealer told me the other day, that he had paid a Camillus farmer $610 for the produce of ten acres of barley ground; thirty or forty bushels was also reserved for seed. "Is farming profitable?"

Carrots.—Upon 100 rods of reclaimed swamp, I raised this year over 400 bushels of carrots—being at the rate of 740 bushels per acre. The labor of cultivation was not one half of what it is on upland. In size they were the finest lot I ever had, the largest weighing four and four and a half pounds. Onions on the same tract, weighed one pound. I feed my family beef with carrots, and keep my horses in admirable condition on them, without grain. S. *Syracuse.*

Capt. Beaufort saw near Smyrna, in 1841, a cloud of locusts 46 miles long, and 300 yards deep, containing, as he calculated, one hundred and sixty-nine billions.

Profits of Poultry Keeping.

Messrs. Editors—Having frequently noticed articles in The Cultivator, showing the results of different kinds of experiments made with barn-yard fowls, for the purpose of ascertaining whether they are profitable or not, and also for testing the comparative merits of different breeds of fowls for laying and for the table, &c., I send you a statement of an account kept by myself during the past year, thinking perhaps it might interest some of your poultry-loving readers.

The account was kept for one year, beginning Dec. 1st, 1855, and ending Dec. 1st, 1856. The stock of fowls consisted of fifteen hens and one cock, of the Chittagong breed. They were provided with a comfortable house, furnished with accommodations for laying, hatching, &c., and were allowed free access to the farm yards at all times. They were fed corn and oats, and also allowed a liberal supply of sour milk, no other animal food being given.

March 15th and 21st, 1856, nine of the hens were set on 117 eggs, but owing to the cold weather and other unfortunate circumstances, only 58 chickens were hatched, out of which 52 were raised.

When six months old, 18 pullets and two roosters were selected for another year, and the remaining 32 (being roosters) were weighed (alive) and taken from the yard and disposed of, and at the end of the year the 20 chickens, selected, were weighed.

A separate account was kept of the feed consumed and of the eggs produced by the old fowls, to enable me to judge of the comparative profits of producing eggs and raising chickens.

The amount of grain consumed and the number of eggs produced by the old fowls, and the market price of eggs during each month, was as follows:—

	Corn fed.	Oats fed	Eggs laid.	Price pr dozen.	Value
In Dec. 1855,....	. ...	3½ bu.	235	24 cts.	$4.70
January, 1856,	1 bu.	2 "	161	24 "	3.22
Feb'ry, "	1 "	2 "	274	23 "	5.25
March, "	1½ "	1½ "	237	18 "	3 55
April, "	½ "	½ "	123	14 "	1 43
May, "	1½ "	......	205	12½"	2.13
June, "	1½ '	......	217	15 "	2.71
July, "	1½ "	......	175	16 "	2.33
August, "	1½ "	......	156	18 "	2.34
Sept'ber, "	2 "	.... .	178	18¾"	2.78
October, "	2 "	......	199	22 "	3.64
Nov'ber, "	2 "	......	97	24 "	1.94
Total,........	16 bu.	9½ bu.	2,247	......	$36.02

Some of the pullets commenced laying before six months old, and the whole number of eggs laid by the 18 pullets, from that time to Dec. 1st, 1856, was 316.

Reckoning the grain, eggs, and chickens, at fair market prices, the account stands thus:

Poultry account,	*Dr*
To 16 bu. corn, fed old fowls, at 68¾c. pr. bu.,.....	$11.00
9½ bu. oats, fed old fowls, at 43¾c. pr. bu.,.....	4 15
2 hens lost, at 75c. each, ...	1.50
	$16.65
117 eggs, set at 18c. per dozen, ...	1.75
29 bu. corn fed chickens, at 68¾c. pr. bu.,......	19.94
2 bu. oats fed chickens, at 43¾c. pr. bu., ...	88
2 bu. wheat screenings, at 75c. pr. bu.,..........	1.50
Total expense..................................	$40.72
Poultry account,	*Cr.*
By 2,247 eggs, laid by old hens, amounting to, ...	$36.02
32 roosters, (6 months old) weighing 258 pounds, (at 10 cts.,)............................	25.80
18 pullets and 2 roosters (8 months old) weighing 141 pounds, (at 10 cts.,)	14.10
316 eggs, laid by 18 pullets, at 23 cts. per dozen,.	6.05
Amounts to, ...	$81.97
Deduct expenses for feed, &c., of,...........	40.72
Leaves a profit of,...........................	$41.25

The amount of manure produced is estimated to be fully equal in value to the milk and other feed not reckoned in the account, thus giving a clear profit of $41.25 on sixteen fowls for one year. W. E. Haxtun. *Dutchess Co., N. Y.*

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Books and Pamphlets.

Transactions of the N. Y. State Ag. Society, with an Abstract of the Proceedings of the County Agricultural Societies. Vol. XV.—1855. Albany: Chas. Van Benthuysen.

We have not yet had time to devote the attention to this volume, which we hope hereafter to give it. It perhaps includes more valuable matter than usual;—we may instance the article containing a further installment of Dr. Fitch's careful and thorough researches into the entomology of the State; the essay of Sanford Howard on Grasses and Herbage Plants, and the second part of W. C. Watson's Practical Husbandry, in which all the breeds of domestic animals on the farm are treated with considerable minuteness. The lecture by Prof. S. W. Johnson at the last Winter Meeting, on the Relations between Science and Agriculture, is marked by deep thought and correct views,—neither of them marred by chimerical hopes, or empirical pretensions. Judge Cheever's Address, delivered on the same occasion, was referred to by us at the time, as a solid, instructive and remarkably valuable one; the subjects of the relations of the Farmer to other classes, and of emigration hence to Western States, are treated in it in a masterly manner. Dr. F. B. Hough contributes an Essay of the Climate of the State, which will, we trust, attract increased attention to this important subject.

Noxious, Beneficial and other Insects of the State of New-York. By Asa Fitch, M. D. pp. 336.

This is a copy of Dr. Fitch's First and Second Reports extracted from the Transactions, and bound together in a separate volume. Those who have read Dr. F.'s concise and able contributions in our paper, will not need to be reminded of his merits as an entomologist. There is a vast fund of information contained in the book before us, much of it derived from original researches, and all instructive and reliable.

The American Poulterer's Companion. A Practical Treatise on the Breeding, Rearing and General Management of Various Species of Domestic Poultry. A New Edition. Enlarged and Improved. By C. N. Bement. With 120 Illustrations on Wood and Stone. New-York: Harper & Brothers.

In a neat volume of three hundred small quarto pages, closely but very legibly printed, Mr. Bement has issued the long promised new edition of his old and well known work on Poultry. It includes an introduction on the general economy of the poultry establishment; a chapter on poultry houses, including a considerable variety of plans and designs, and another on its accessories—nests, coops, feeding apparatus, &c., with similar illustrations. Then follow chapters devoted to the history and description, respectively, of Wild, Asiatic, Crested and the various sorts of other Farm-yard Fowls—the incubation of chickens, their fattening, preparation for market, diseases, &c. Concluding with a hundred pages on Turkeys, Pea, Guinea and Aquatic Fowls, with a brief notice of such wild birds as are susceptible of domestication.

The volume thus covers the whole subject, and will be found well worthy of consultation by the farmer or amateur. Many of the illustrations scattered profusely through it, are very handsome.

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A Profitable Invention.—Mr. Robert Griffith, of Philadelphia, who two years ago patented a Horse-Shoe Machine, has lately sold the right for *sixty-five thousand dollars.* A joint-stock company has purchased the patent.

Practical Remarks on Manures.—I.

Excrements from Horses.

"Till well and manure well, is the whole secret of Agriculture."

Tull's theory of tillage, which was to supersede entirely the use of manures, by frequent and unceasing plowings and hoeings, although an entirely repudiated doctrine, still possesses its advantages when used in connection with frequent supplies of manure, and the above quotation from Oliver de Serris, places the whole matter on its proper footing.

Horse Manure ferments and decomposes very rapidly, and if it is not immediately applied to the land, it soon becomes comparatively useless; to prevent which it should be in some way composted; or on a farm where hogs are kept, it is a good and saving practice to have all the dung and litter from the horse stables thrown into a cellar or some other convenient place, where they will have access, and thus incorporate it with their manure, which is of a cool soapy character. They understand their part of the work, and will attend to turning the manure as often as necessary.

Where this method cannot be used, a spot should be taken from which the land rises in all directions. If no such place should be found in a convenient locality, one can easily be prepared by a little digging, at the lowest point of which should be inserted a tub or cask, designed to catch all the liquid portions of the manure. This can be covered with a wooden lattice or iron grating, and a pump put in; around which the manure should be piled. The pumps should be used as often as possible, and the liquid poured over the driest portions of the heap. In this manner both solid and liquid manures are preserved, without as much turning as is necessary under ordinary methods. But a better way still is to incorporate it with muck or pond mud, (when they can be procured,) in equal layers with the manure, as in making a compost heap, these not only preserve it by absorption, but are in themselves valuable fertilizers. Substitutes can be found in the use of forest leaves and sods from the road sides. A heap of this kind can hardly be turned too often, and in a dry season the application of water or liquid manure, will prevent fermentation and produce a more thorough decomposition.

Where it is impossible to procure either of the above ingredients to compost with horse dung, it will be found profitable on a stiff clay farm, to use sand, and clay can be used on a light soil; either of these would pay under such circumstances, as they would improve the mechanical texture of the soil.

The value of horse manure as compared with that of other farm stock, has been a matter of much discussion among scientific men for a long time, the view generally adopted being that it was inferior to most other animal excrements. It would perhaps seem that this question could be easily settled by analysis, but great difficulty arises in finding out anything definite by this mode, as the feed of horses varies so much in different circumstances; but for this, analysis would prove conclusively, and bring this and many similar discussions to an end.

We are of the opinion that when horses are fed mostly grain, their manure is superior to most others, especially when used in its fresh state, before the escape of nitrogen, which is the most important element of animal manures—not that it is any more necessary to vegetation than carbon, oxygen, and hydrogen, but it is less easily procured by the plant, as there is little of it in most soils, and they can get none from the air; hence the great value of all manures containing it; and as it is very liable to escape, too much care can not be taken to prevent such a loss. Questions of this kind require thorough practical experiments, performed for a series of years with great accuracy, on various kinds of crops, but are seldom attempted by our farmers as they require too much time and labor, which proves the great want of a good Agricultural School and Experimental Farm, sustained in a liberal manner, and managed by practical as well as scientific men. Geo. T. Hammond. *Farmingdale, N. Y.*

Saw-dust as Litter for Stables.

Some weeks ago an article appeared in the columns of this paper, in which saw-dust was mentioned and recommended as a litter for stables, which possessed a superiority over straw in several particulars. We have just noticed a communication in the *Farmer & Visitor*, (Manchester, N. H.,) in which the writer mentions several other advantages in addition to those which were named in the article referred to in our columns. Among the points in which saw-dust was found superior to straw by the person who had tried it in N. H., the first mentioned is, that it occupied less room in the barn, which is not unfrequently, as in the case in this paper, a matter of some importance. Next, saw-dust is claimed as superior to straw, because it absorbs more of the fertilizing matters about the stable, the person using it being very sure that the ammonial emanations were less strong on opening the doors in the morning than when straw litter was used. Next, it is said to be much less of a chore to clean the stable, and also, that so little comparatively had to be thrown out that one load lasted a long time. The next thing named as an advantage of saw-dust as litter is, that the manure heap occupied so much less space than when straw was used, and thus admitted more easily of being protected by a covering from the wasting effects of exposure to sun, wind, and rains. Then again it is an obvious advantage to have in one's yard manure in as small bulk as possible, and this is effected to a great extent by the use of saw-dust. The same amount of fertilizing matter is, probably, contained in one load of manure made from saw-dust, as there would be in two or three loads of that which had been made from straw litter. Then, too, in the field it would be free from all the trouble which long manure frequently gives.

With so many points of superiority, we think it probable that saw-dust will, hereafter, be more generally used, at least in the neighborhood of saw-mills. If found to be a convenience or an advantage to any of our readers, it will give us pleasure to know that we have so far succeeded in accomplishing the object of our constant desires, labors, and exertions, which is, *to render to our readers the greatest amount of valuable services possible.*

Cookies.

One pound and a quarter of sugar, three-quarters of a pound of butter, one half a pint of warm water, four tablespoonfuls of caraway seed, one teaspoonful of soda dissolved in three of warm water, three pounds of flour. Roll out very thin, and bake in a very quick oven. A. A.

Gingerbread.

Two cups of molasses, one cup of melted butter, one egg, one cup of sweet milk, one teaspoonful of soda, one heaping teaspoonful of cream tartar, two tablespoonfuls of ginger, and flour enough to make a stiff batter. This should be baked with care as it burns easily, and if burned has a bitter taste. A. A.

Mock Sponge Cake.

One quarter of a pound of butter, one of sugar, three eggs, one half a pint of milk, one even teaspooful of soda, three coffee cups of flour, one heaping teaspoonful of cream tartar, a little salt, and essence of lemon. This will make two loaves. Bake in a quick but not too hot oven. A. A.

Sale of Benjamin Warfield's Short-Horns.

The sale of the herd of Short-Horn cattle, belonging to the late Benj. Warfield, Sen., were sold at auction at his late residence near Lexington, on the 28th ult. The following account of the sale has been furnished us by Wm. Warfield, Esq.:

COWS.

1. Cherry 2d, to J. M. Stone, Scott Co., $400.
2. Adriene, to B. Warfield, Fayette Co., $376.
3. Clara, to E. N. Warfield, Cooper Co., Mo., $150.
4. Sarah, to J. M. Stone, Scott Co., $200.
5. Duchess, to J. M. Stone, Scott Co., $400.
6. Miss McCaw, to J. Curd, Fayette Co., $310.
7. Bracelet, to G. Smith, Fayette Co., $175.
8. Ruth, to J. Wasson, Fayette Co., $195.
9. Caroline, to P. H. Thompson, Fayette Co., $100.
10. Mary Clay, 4th, to Wm. Warfield, Fayette Co., $100.
11. Kitty Morgan, to E. N. Warfield, Cooper Co., Mo., $80.
12. Eve, to L. Prewitt, Fayette county, $175.
13. Tulip, to S. T. Hays, Fayette county, $155.
14. Lady Fairy, (imported in 1853, by the Northern Kentucky Importing Company, and sold at their sale at $1,100.) to Dr. R. J. Breckinbridge, Fayette county, $455.

Fourteen Cows brought $3,265—average price $233.21.

HEIFERS.

1. Maria Hunt, to B. Warfield, $305.
2. Miss Chilton, to J. M. Stone, $230.
3. Mary Dewees, to B. Warfield, Fayette county, $310.
4. Charity, to B. Warfield, Fayette county, $205.
5. White Beauty, to Wm. Warfield, Fayette county, $70.
6. Alma, to Wm. Warfield, Fayette county, $150.
7. Melissa 5th, to S. J. Salyers, Fayette Co., $380.
8. Cherry 9th, to Cicero Coleman, Missouri, $425.
9. Red Rose, sold with her mother, (Duchess, No. 5.)
10. Adriene 2d, sold with her mother, (Adriene, No. 2.)
11. Juliette, to John Giltner, Bourbon county, $175.
12. Lady Fairy, 2d, to Wm. Warfield, Fayette Co., $605.

Ten Heifers brought $2,855.50—average price $285.55.

BULLS.

1. Young Chilton, (imported in 1853 by the Northern Kentucky Importing Company, and sold at their sale for $3,005,) to Dr. R. J. Breckinbridge, Rev. R. T. Dillard, Wm. and B. Warfield, at $650.
2. Exile, got in England by Mr. Fawkes' Bridegroom; to Dr. R. J. Breckinbridge and Wm. Warfield, Fayette county, at $300.

BULL CALVES.

1. Fayette, to G. Hill, Henry county, $80.
2. Boston, to S. H. Shouse, $64.
3. Fancy Boy, to G. Smith, $95.
4. Herald, to J. Curd, Fayette county, $180.
5. Dudley, to R. Ducke, $150.

7 Bulls and Bull calves brought $1,519—ave'ge price $217.

Whole number, 31 thoroughbreds—average $246.40

Whole amount of sale, Cattle, Horses, Sheep and Hogs, $9,383.

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Trial of Seeds from the Patent-Office.

Japan Pea.—In answer to an inquiry in the Co. Gent., a few weeks since, respecting this far-famed pea, I am induced to give my experince with it. Last spring I received from the Patent Office a package of the seed. I had heard and read so much in its favor, that I was desirous of raising all I possibly could from what little seed I possessed. Therefore I selected a warm rich portion of my garden—made it still richer by manuring with well rotted barn-yard manure. I planted them the 1st of May. They came up in about ten days and grew finely. They made showy, beautiful plants; in fact, I had nothing in my garden that attracted more attention. But the plants were all I got for my trouble. The peas were not "forthcoming." At the time of our first heavy frost (Oct. 15,) they were about half grown. The frost did not kill them at once; but they did not grow any after it. The experience of others in this section agrees with mine, as to their adaptation to the climate of Northern New-York. A few of the plants were exhibited at our County Fair, that were as green as mine. In fact, I doubt if they can be ripened (unless under glass) as far north as this.

Mexican Corn.—I received a package of "New Mexican White Flint Corn" from the Patent Office last spring. I planted it the 10th of May in soil and situation that is well adapted to the growth of corn in general. Our first heavy frost held off about three weeks later than usual.; yet the season was not long enough to ripen it. The growth of the stalk and ear was enormous; nearly equalling the statement of W. W. Randolph, in Co. Gent. of Nov. 20th, but unlike his it did not mature.

King Philip Corn.—Some improved "King Philip corn," planted at the same time, was ripe enough to harvest the 1st of Sept. The latter variety, I think, will prove a valuable acquisition to the Northern States.

Turnips.—Some "Early Dutch Turnips," also from the P. O., prove to be the earliest of any variety I ever cultivated. I had no trouble in keeping the "Sweet German Turnip" perfectly sound and fresh until these were fit for the table. With these two varieties I can easily have turnips for table use at all times of the year. Edward L. Coy. *West Hebron, N. Y.*

Seeds from the Patent Office.—The Patent Office has sent North, to us, I think, a valuable sugar plant in the *North of China sugar cane.* We can mature the plant for the syrup or sugar. All the obstacle lies in the seed, which we cannot mature so far north. Otherwise we would not suffer, I believe, in sugar-making with this cane in competition with the south.

My "*New Mexican White Flint Corn*," matured, and is a pretty good yield, and very large growth, many stalks of three ears measuring 13 feet or over, and nine feet to the first ear, as the officers of the Oswego Co. Fair saw waving over the speakers' stand on the second day of the fair.

The "*Forty Days Maize*" is not as early with me as the "New Mexican White Flint," and has a great objection in the enormous size of its cob. The kernel is very handsome, but it was about ninety days before it showed tassel and silk, which lateness with too large cob for amount of corn to the ear, satisfies me that this kind will do us *no good.*

"*California, or branch-headed Wheat*," in my view, would not be worth threshing here, if we wasted time and land to raise it. W. W. Randolph. *Pulaski, N. Y.*

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Northern Muscadine Grape.—Mr. P. Stewart of the Shaker community at New Lebanon, invites our attention to the Report of the Fruit Committee of the Worcester Ag. Society, published in the Ag. Report of Massachusetts for 1855, which says:

> "When asked which was the preferable grape upon the tables, to be eaten *now*, it was the unanimous opinion that the Early Northern Muscadine stood first, and the Early Amber next. Both these grapes were ripe, and the first quite so, while the Isabella was quite immature. In this vicinity the Isabella does not attain maturity oftener than once in three or four years, which fact is sufficient to effectually prevent its cultivation as a matter of profit. The others, although the berries are more foxy than the Isabella, especially in their perfume, are good growers, perfectly hardy, and the fruit is sure to ripen."

We should probably have agreed with the committee had we been present, notwithstanding Mr. Stewart fears we are prejudiced against his favorite grape, as we should have given the preference to a ripe Northern Muscadine over an unripe Isabella. If we lived in a climate where no better grape would ripen, we would cultivate the Northern Muscadine, but not otherwise.

California Products.—Among the products exhibited at the late State Fair in California, were Turnips, measuring 3 ft. in circumference—a Sugar Beet, weighing 103 lbs.—a Beet, weight not known, 3 ft. 4 in. long, and 20 inches in circumference $2\frac{1}{2}$ feet from the top, and Cabbages weighing 50 lbs.

Notes for the Month.

Judicious Breeding for Every Farmer. — We refer to some very excellent remarks on the subject of the advantages of breeding from pure-bred animals in another column. They are from the pen of R. A. Alexander, Esq., of Kentucky, well known as himself a careful and successful breeder. The system recommended is one which, as he says,

> "has been followed for a series of years with the utmost advantage by the most intelligent stock raisers throughout Great Britain. These men, never themselves owning a thorough-bred female, or an animal known to be such, attend the sales or lettings of those who make a business of breeding thorough bred stock, and there annually, or as often as they require one for crossing, either purchase or hire a bull or ram, and having used him for a year or two, or as long as he will answer their purpose, dispose of him to seek another."

The remarks made, though having reference chiefly to cattle, apply equally well to stock of all other kinds. They present the view of the subject which every enterprising and successful farmer should take, by which he might save much and make much, and which it has been the object of our paper to inculcate for many years. We have been surprised to learn the apathy that still is far too generally prevalent upon it. Farmers in this county of ours, as we know, though we are really ashamed to tell it, can only with the utmost difficulty be persuaded to go a little farther and pay a dollar or two more for the services of such Short-Horns as Dr. Wendell's, Ayrshires like Mr. Prentice's, Herefords like Mr. Corning's, or Devons like Capt. Hilton's, in preference to cattle of no more blood or breeding than their own. We hope they will be led to make some improvement in this particular. The subject is one susceptible of still further argument on the side of reason and enterprise, and we invite communications to aid in setting it in a proper light before farmers at large.

The Chufa or Earth Almond.—Our readers are referred to an interesting communication in another column, containing the experiment of a correspondent with tubers of this plant sent out from the Patent Office. His statements as to their large yield, and the purposes to which he thinks they may be applied, certainly *look well*, and are worthy of note by readers generally. The tubers sent us are from half an-inch to an inch in their largest diameter, shrivelled into all sorts of shapes, and about as hard as a chestnut, which they somewhat resemble in taste, having also a little of the flavor and sweetness peculiar to the almond.

Death of Roswell L. Colt.—Mr. Colt died at his residence in Paterson, N. J., on the 23d of Nov., at the age of 77 years. Mr. C. became well-known many years since, by his extensive importations of improved domestic animals, and the warm interest he took in all efforts to promote the improvement of the agricultural interests of the country. The Newark Daily Advertiser says:—"Paterson will feel the loss of this noble-hearted man; his benefactions were liberal and extensive. There is scarce a church of any denomination in that place which stands not on ground presented by him. He was a Presbyterian, strong and decided in his preferences, yet he was liberal to other denominations. His extensive liberality to the Presbyterian church of Paterson, in all its relations, is well known and appreciated. Mr. Colt dispensed, through a long life, a liberal hospitality. With all his wealth, and surrounded as he was with magnificence, he yet retained in his dress and manners much of that simple taste in which he was educated."

The Albany Evening Journal, in noticing Mr. Colt's death, says:—"Mr. C. was among the most enterprising merchants and manufacturers that our country has produced. His elegant mansions, either in Baltimore, New-York, or Paterson, were ever the seat of magnificent and refined hospitalities. We have met, and enjoyed the high intellectual conversation, at his bounteous table, of John Quincy Adams, Daniel Webster, Henry Clay, James Kent, Philip Hone, and other distinguished men whose names belong to history. We have also sat at his table when the Patriarch was surrounded by his wife and fourteen sons and daughters."

A Mark of Progress.—*Porter's Spirit of the Times*, a journal devoted, as our readers are aware, "to Field Sports, the Turf, and the Stage," has frequently congratulated the country on the happy fashion just now so prevalent, of ladies' riding at our County, and some even of our State Agricultural Shows. It last week furnishes a striking example of the progress thus effected toward achieving what it considers the aim and tendency of this Female Equestrianship, viz.: to "*help make racing a national sport.*" Agreeing entirely, as we do, in this view of the probable result of such exhibitions, we cannot neglect to chronicle all the steps taken toward its accomplishment. The one in question is as follows: A challenge for a match of horses recently appeared in the paper above quoted, from a *lady*, who has found several equally "spunky" dames and damsels to accept it—about one of the latter of whom we now receive the information below:—

> "Three times has she been a victor at the trotting courses of the Agricultural Fairs; on one of which occasions she (at Canandaigua) drove a black Morgan Stallion, in harness, in the slashing time of 2.38. This lady desires us to say to Di Vernon, that she is indifferent whether the trial be in running, steeple chasing, or in trotting; and if in running, is willing to go in either one or four mile heats."

According to present probabilities, the Union Course, which has already been the scene of so many similarly refined and ennobling contests, will shortly "behold two beautiful and high-spirited women, mounted on blooded running horses, flying through a four mile heat!" With *Porter's Spirit*, "we confess to no little interest in this business." *Are* our mothers, wives and sisters to be engaged in thus drawing the country "a few inches nearer the millennium" of the turf and its accompaniments?

Patent Office Report for 1855.—The Agricultural Report of the Commissioner of the Patent Office for 1855, has but just been completed by the printer, and we are indebted to the Commissioner, the Hon. Charles Mason, for an early copy. It forms a well-arranged and well-printed volume of about 400 pages. Its general arrangement is the same as that of the previous year, which was a great improvement on most of the former vols. We have barely glanced at its pages, but infer that this Report will be found at least equal to any preceding one. We shall endeavor to give some extracts from it next week.

The Dioscorea.—We have been favored with a couple of good sized roots of the famous Dioscorea batatas, by Mr. John Dingwall, florist, of this city. One of them we had baked the other boiled. The baked one was decidedly the best, opening as white as pure flour, and though not dry and mealy as a fine potato, was very fair in this respect, and though to our taste not equal to a good potatoe, we doubt not it will prove, when one becomes accustomed to it, a very acceptable edible. Mr. Dingwall thinks that if it will stand the winter in the ground, it will increase in size another year, and becoming more mature, will be found far superior for the table to its present condition.

Prices of South Downs in England.—Mr. Henry Lugar of Bury St. Edmonds, one of the best breeders of South Downs in England, had a public sale on the 5th of Sept. last, at which 950 head were sold, producing £5,230—say $26,150—or an average of about $27.50 per head—172 yearling ewes averaged $27.25—29 yearling rams averaged about $120 each—23 older rams averaged $100 each.

Herd Books.—Mr. Allen is now hard at work on the third vol. of his Short-Horn Herd Book, which, we hear, is likely to equal in the number of its entries, his second vol. Breeders who have not entered their animals, should lose no time in doing it. Address Lewis F. Allen, Esq., Black Rock, N. Y.

Sanford Howard, Esq., of the Boston Cultivator, is also at work on the third vol. of the Devon Herd Book, and all entries for it should be forwarded to Mr. Howard at Boston, without delay.

Death of Black Hawk.—This celebrated horse, to whom the whole race of Morgan horses are greatly indebted for their notoriety, died at the stable of his owner, David Hill, in Bridport, Vt., on the 1st of Dec., at the age of 23 years. Black Hawk was sired by Sherman Morgan, and he by the original Justin Morgan horse. He was foaled the property of Ezekiel Twombly in Durham, N. H., in 1833. By the death of Mr. T. he "passed into the hands of his nephew, by whom he was sold, when four years old, to A. R. Mathes, who sold him to Brown & Thurston, then of Haverhill, Mass. Mr. Thurston, (Benj. Thurston, now of Lowell) subsequently became his sole owner, and in 1844 sold him to Mr. Hill, by whom he has since been kept till the time of his death." The Spirit of the Times says:—

> Black Hawk was a little less than 15 hands high, and weighed about 1000 pounds. His color was black, like that of his dam, and his colts have been black, bay, or chestnut, with hardly an exception. He possessed the character of the Morgan family of horses in an eminent degree. He was symmetrical, muscular, and compact in his form, and his elastic style of action, speed, and endurance, which qualities he imparted in a remarkable degree to his progeny, rendered him one of the most valuable stock horses ever owned in this country. Black Hawk could trot his single mile in 2:40, and exhibited considerable bottom in longer races. In 1842 he won a match for $1000, by trotting on the Cambridge Track five miles inside of sixteen minutes. Oct. 3, 1843, he won a race of two mile heats, beating two competitors easily in 5:43—5:48—5:47. Black Hawk was the sire of several of the fastest trotting horses on the turf, among which are Ethan Allen, the best trotting stallion in the world; of Lancet, who has beaten the best time of Lady Suffolk; of Black Ralph, Belle of Saratoga, Black Hawk Maid, &c. He was not only a fortune for his owner, but the value of his stock has added much to the wealth of the State where he was kept. Mr. Hill has received for his services over forty thousand dollars; his last season netted seven thousand dollars, and he was already booked in advance for five thousand dollars. His owner obtained insurance on his life until he arrived at an age when the premium charged was necessarily very high and he died uninsured.

Sanford Howard, to whom the breeders of Black Hawk horses in Vermont should present some valuable testimonial for his early appreciation of their merits, and his constant efforts to make them known during his connection with The Cultivator, and since then through the *Boston Cultivator*, aptly suggests that the skin of Black Hawk be preserved by some skillful taxidermist, in such a manner as to represent with the greatest practicable accuracy, the body it originally covered. We may add the hope that our State Ag. Society will in this case, procure it for permanent exhibition in our New Museum, where it could but be a matter of great interest to every visitor. For ourselves we should look at it with peculiar pleasure, as it was through our columns as above stated, that this celebrated horse first became more generally famous, and through them that his true history was originally elicited and published.

Previous Numbers of the Register.—We are constantly asked if these can still be furnished, and desire to answer that they can, in any desired quantities. Their contents are now as valuable as the day they were first published. Price, Twenty-five cents each. The issue for 1857 is Number Three.

A Large Flock.—It is said that Mr. McCunnell, of Sangamon county, Illinois, has the largest flock of sheep in the United States. It numbers twenty-one thousand, and all of the choicest Merinos.

Origin of the Ayrshire Cattle.—The Paris Exhibition of domestic animals, last summer, seems to have thrown some light on the long disputed question as to the origin of the Ayrshires. A breed of cattle from Denmark, exhibited on that occasion, so strongly resembled the Ayrshires, that many believed them to be descendants of that breed, as it was known that many Ayrshires had been exported to Denmark. In answer to an inquiry on this subject, the editor of the *North British Agriculturist*, in that paper of Oct. 29, says: "We had opportunities of knowing that a considerable importation of Ayrshire stock into Russia, Prussia and Denmark, had taken place for some years past. On seeing the cattle in the Paris Show referred to, we inferred that they were descendants of imported Ayrshires; but the Professor of Agriculture in Copenhagen, M. Jorgensen, and the Danish representative at Paris, Baron Delong, informed us that they were the indigenous breed of Holstein, and their additional representations satisfied us that this Holstein breed is the original Ayrshire. The early connection of this country with Denmark fully confirms the conjecture that the Sea Kings brought with them some of their valuable domestic animals, and of these the breed now known as Ayrshires."

Arrival of Imported Stock.—The ship Antarctic, from Liverpool, arrived at New-York on the 13th, laden with a larger number of fine domestic animals than were ever before brought to this country in one vessel. A notice of this cargo, from a British paper, will be found in the Country Gentleman of Nov. 6, p. 300. In addition to the animals there mentioned, including horses, cattle, sheep and swine for R. A. Alexander, of Kentucky, and Mr. Thorne, of Dutchess country, the Antarctic brought a lot of select and rare birds for Mr. J. J. Bowers, of Baltimore, Md. Among them are gold and silver pheasants, remarkable for their beautiful plumage. Also, white and black swans, white peacocks, magpies, with various kinds of chickens of the most delicate, rare and valuable species.

Cattle Sales.—We hear that S. P. Chapman, Esq., of Clockville, has recently sold a very superior bull calf, "Perfection"—out of Duchess by Halton, to J. W. Chaddock & Brother of Pavilion, Genesee Co. Both sire and dam have won first prizes at our State Fairs, and Perfection is said to be worthy of his parentage. Mr. C. has also sold a heifer, "Ruby 6th," to Mr. Heman Hill, of Brookfield, Madison Co. She was sired by Halton, and her grandam was Mr. C.'s famous milking cow Ruby.

Information Needed.—A correspondent writes us as follows: "Agricultural information is a great want of these farming times. Who raises the largest crops and the best cattle, and how it is done, is the question. Hundreds of farmers are at this moment halting between two opinions. They are revolving this query, "Will farming pay?" They are in doubt whether to go forward or stop. Solve this problem for them, favorably to Agriculture—give them facts and figures, places and dates, and my word for it Agriculture would receive an impetus never dreamed of. Societies and Legislatures must scatter Agricultural documents with a more lavish hand, if they would do all the good possible. Now is the time for starting *Farmers' Clubs*. We are taking the introductory steps, and I intend to note every new idea brought out at these meetings for the benefit of some Ag. paper."

Premiums.—The list of prizes offered for subscriptions will be found on the last page. No one can spend a few hours in procuring them, without securing something for his trouble—our thanks and some benefit to his own neighborhood if nothing else!

☞ At the late State Fair in California, the first prize for the best entire horse, was awarded to a Black Hawk Horse called "David Hill," owned by A. J. Easton, Esq., of San Francisco.

Chinese Sugar Cane.—All reports from those who have grown this plant, so far as we have seen, have been highly favorable—so much so that all the seed which can be procured, will be planted the coming season, when its value as a syrup plant will be thoroughly tested. So strong is the confidence in it, that several gentlemen in the Southern States intend to plant from ten to fifty acres, and we hear of one who proposes to plant one hundred acres, from a belief that very excellent syrup may be made from it at a great profit, even should he fail to make it into sugar.

We are indebted to a correspondent at Baltimore, for some notes in relation to it, from which we learn that Mr. Asa Whitney, near Washington city, raised last summer one hundred bushels of the seed, which have been purchased by the Patent office at $5 per bushel, for gratuitous distribution. One bushel of it is to be sent to each of the Secretaries of the several State Ag. Societies for distribution.

Tree Cutting Machine.—E. L. R. sends us from Baltimore a short description of a machine for cutting Trees, invented by Mr. C. G. Ehrsam. "An iron frame is made to clasp the tree, and from this frame a chisel shaped knife is brought in contact with the trunk. By the turning of a wrench, the chisel is worked round and round the tree, cutting its way to the center. The inventor claims for it an efficiency equal to the felling of a tree of four feet in diameter in half an hour." Unless we are much mistaken, we saw it on exhibition at the U. S. Ag. Society's Philadelphia Show, when we confess we were not very favorably impressed with its operation. It would not compare with the Steam Tree-Cutter mentioned by us on page 237 of the present vol., as shown at our last State Fair at Watertown.

Long Wool.—Seeing a piece in the Dec. Cultivator, induces me to send you a sample of my wool which I this day took from my Teeswater buck, who was one year old the fifteenth day of last April. Weight of buck the 23d day of last September, 218 pounds. He was sheared the 18th of last June, and his wool at that time was twelve inches long by actual measurement; adding the length of the inclosed sample of five months and eighteen days growth, will make eighteen inches in length, and as to quality, I would like your opinion as to how it compares with wool from other breeds of mutton sheep. John Barden. *Wells, Vt.* [The sample inclosed was a very good one, and compared well with other long wool we have received.]

A "Patent Vine Protector."—We were shown last week the model of a Grape House, for which a patent has recently been obtained by Mr. Abel H. Grennell, of Springfield, Vt. It is intended to supply the grower with the means of enclosing his trellises under glass, and at the same time of opening them on hinges out into the air, through doors provided for the purpose. The house formed when the doors are closed is octagon in shape, and can be made quite an ornament. At the same time we doubt whether a plain cold vinery, the plans for which have been fully laid down in our columns, will not prove cheaper and equally serviceable in all ordinary cases.

Queens Co. Ag. Society.—The annual meeting was held at the court-house on the 2d Dec., when the following officers were elected:—

President—Hon. Wm. T. McCoun, Oysterbay.

Vice Presidents—Samuel M. Titus, Oysterbay; Stephen L. Spader, Jamaica; Jeremiah Valentine, Flushing; Wm. L. Laing, Hempstead; James P. Smith, North Hempstead; Joseph Tompkins, Newtown.

Cor. Sec. and Treas.—John Harold, Hempstead.

Managers—Wm. J. Youngs, Oysterbay; Daniel R. Suydam, Jamaica; Thomas Whitson, Flushing; S. B. Mersereau, Hempstead; R. E. Thorne, North Hempstead; John W. Morrell, Newtown.

Rec. Secretary—Robert Willetts, Flushing,

The Treasurer reported a balance of $225.42 in the treasury. A piece of plate of the value of $100, was voted to Mr. Harold, for his efficient services as secretary and treasurer.

Inquiries and Answers.

Straw and Muck for Composting.—Can a farmer who has large quantities of straw for litter, use to advantage muck, or anything of the kind, in composting? May not straw take the place of everything else here? P. *Salisbury, Ct.* [Under ordinary circumstances, straw is the most convenient and useful material for absorbing the liquid portions of manure, on account of convenient handling, absorbing powers, and utility for littering stables. The only difficulty is to procure it in sufficient quantity; and the most frequent want of proper management is in not applying it in just the right quantity at all times. Muck is eminently valuable, provided it has been *well dried;* applying it when saturated with water, it cannot, as a matter of course, absorb manure. Muck, turf, loam, &c., are generally most useful in using by alternate layers with manure, in making compost heaps at other times than winter.

Water Lime.—Will you be good enough to inform me through the pages of the Country Gentleman, what water lime is, as I see it recommended as a cement for cellar floors. Wm. M. Jones. *Digby, N. S.* [Water lime, which our correspondent may perhaps be familiar with under the name of *hydraulic cement*, is made by burning an impure limestone, and then grinding it like plaster or gypsum, for use. When mixed with nearly twice its bulk of clean sharp sand, and mixed with water, it soon "*sets*," and by exposure to air and water, becomes in a few months hard like stone. Two parts of water-lime and three of sand, usually make the hardest cement. A cellar, first smoothly paved with small stone, and then coated with water-lime mortar, made of the best materials, is furnished with as perfect a floor as by the best flagging.

Water-limestone differs from common limestone by the impurities it contains, and more especially by a large proportion of alumina or clay—it does not burn so as to slack to powder, and hence needs grinding. It has been made artificially by mixing clay and some other ingredients with common or pure lime.]

Lime as Manure.—Is lime good on land that is full of lime-stone? In this vicinity many farms are covered with blue lime-stone. Will lime be of use to such land? Joel Brown. *Mount Healthy, Ohio.* [It is a common opinion that where limestone is abundant, it will be only "carrying coal to Newcastle" to apply it as manure. We have, however, known it to prove decidedly beneficial on such soils—while in other instances it exerted no sensible influence on some soils where no limestone existed. We have not yet had a sufficient number of well-conducted experiments on soils of different character, to establish a rule for its application. We can only recommend *trial* to our correspondent, and careful measuring or weighing results.]

The Barberry.—I have noticed a print that recommends the Barberry bush (Berberis vulgaris) as a hedge-fence plant. Please let your valuable paper tell us your opinion of it, and whether it is all humbug as some suppose, about its influence in blasting wheat. I have about a quart of the berries that I might plant as an experiment, but I should like your advice. Thos. Lawrence. *Olena, Ill.* [The barberry grows very compactly in a mass, without the cutting back required for most hedge plants. It is full of prickles. It would doubtless make a good garden hedge or screen—perhaps as stout as the privet or nearly so, but we should think not large enough to form an effectual barrier against cattle. The notion that it injured wheat was long since exploded. We have seen the heaviest crops of wheat, growing close beside it. It was once claimed that it breeds or fosters a parasitic fungus, that extended to, and destroyed wheat. But botanists found that no parasitic ever found on the barberry, at all resembled such as infest wheat—they were totally distinct, and to suppose that one would extend to and injure the other, would be no more reasonable than to fear that young pigs could catch the whooping cough from children.]

Lime and Marls.—Can you inform me of any late work on the use of lime and marls as fertilizers? T. M. *Erie, Pa.* [We know of no late work on this subject. Ruffin's "Essay on Calcareous Manures," published at Peterburgh, Va., about fifteen years since, is a very valuable work. We do not know where it can be had, but most likely by addressing F. G. Ruffin, Ed. Southern Planter, Richmond, Va. Price, about $2.]

Mott's Furnaces.—What is the price of the different sizes of Mott's Agricultural Furnace? S. M. B. [The prices, according to Emery Brothers' Catalogue, are as follows:—15 gallons, $9—22 gall. $12—30 gall. $15—60 gall. $23—90 gall. $35—120 gall. $50.]

Poultry.—Please state what is the best Poultry Book and its price—also whether there is any Poultry Paper published in this country. C. H. [It is, perhaps, a difficult question to decide as to which of the numerous works on Poultry, is in all respects the best, but we can recommend the new edition of Bement's "Poulterer's Companion," price $1.25, or $1.50 sent postpaid. There is no Poultry paper published in this country, nor indeed do we know of one any where. The Poultry Chronicle, published for a year or two in England, was discontinued some time since.]

Planting Thorn Seed.—Presuming that Mr. Rudisill, of Pulaski, Ohio, in inquiring how he can grow hedge-thorn from seed, means the common English or Irish hawthorn, we take pleasure in informing him that in Ireland, where this plant is propagated very extensively, the usual plan is to gather the "haws"—berries—when they are fully ripe (say in November,) and digging a round, deep hole, bury them in the earth some 20 or 24 inches below the surface. There they lie until the spring next succeeding the one after they are buried. They are then taken out, and being planted like peas, soon show themselves as "Quicks" in the nursery. A. B. *Albany, N. Y.*

Cleaning Carrot Seed.—"J. W." can clean his carrot seed by threshing with a common flail; winnow in mill, or an old-fashioned hand fan or willow fan. He will also need screens or "riddles" that are suitable. Large quantities are raised in this vicinity, and cleaned in this manner. A. S. Moss. *Fredonia, N. Y.*

Cranberry Culture.—I wish to make some inquiries about the cultivation of the cranberry. I have a low piece of ground, black muck from two to four feet deep, rather wet and boggy. Is this suitable land? When must they be set—where can they be obtained—is there any difference between wild and cultivated? Must they be set in drills? How long before they will bear? Wm. Marks. *Roseboom, N. Y.* [We shall be glad to hear from any of our readers in answer to the above inquiries.]

Inquiry.—Can you or any of your subscribers, tell me what ails my horse? I have a horse that I value at $200, and I am teaming with him every day, and every morning when I start with him he appears to be perfectly well in every way; and every night, or rather every afternoon about four or five o'clock, he begins to be lame in one of his hind feet, and comes home at night quite lame. He has no appearance of any bunches or blemishes of any kind whatever, and his leg is not swollen or inflamed at all as I can discover. Now if any one can tell me what is the matter with him, and how I can cure him, they will confer a great favor. J. P.

Fruit and Bee Books.—*L. W., Northfield, Ct.* We can safely recommend Thomas' "American Fruit Culturist," and Quinby's "Mysteries of Bee Keeping"—the price of each, $1.00, sent by mail postpaid.

Blind or Wolf Teeth in Horses.—I wish some of your subscribers would inform me through The Cultivator, whether young horses have what the farmers here call Wolf teeth. I was told a few days ago, that two of my promising colts had Wolf teeth, and that if they were not knocked out soon, they would soon go blind. Any information will much oblige Jno. M. E. Valk. *Meadow Bluff, Va.*

In no work on the diseases of horses, so far as we know, is what are called "blind teeth," noticed. The first notice we find of them, is in The Cultivator for 1843, where they are described by a southern writer as follows:

"There occurs in some horses, between the ages of three and six, between the bridle tooth and grinders, a *small, long tooth*, without roots, and not inserted in a socket, but merely in the gum of the upper jaw. It has never been alluded to in any system of farriery, but our planters can trace its existence in this State for more than half a century.

"It may and doubtless does occur in horses of any shaped head, but in the three cases on my own farm, it was in horses of *dished* heads. One had gone entirely blind before I was apprised of the cause, and the other two I relieved by immediately extracting the *blind teeth.* Hundreds of instances could be adduced of the existence of blind teeth, and the destruction of sight when not extracted. No horse has ever been seen with them at mature age, *having good eyes.*

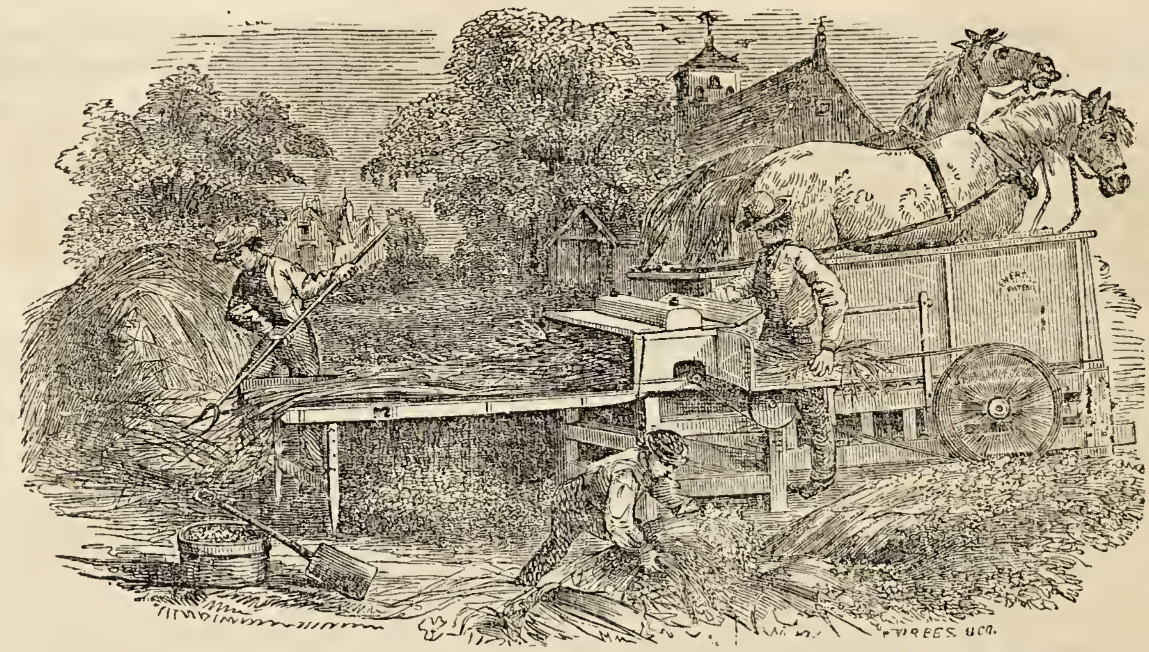
"It is conjectured by some to be peculiar to Indian corn feeding; by others, to a hot climate. The three cases under my own observation were in horses raised on my own farm; and not having ever seen any allusion elsewhere, I am inclined to believe *it is confined to the South.*"

The publication of the above, brought us several statements from different parts of the country, all the writers agreeing that the "blind teeth" were the cause of blindness, and that they should be extracted as soon as discovered.

Sale of Brood Mares.—The Bardstown (Ky.) Gazette says that Messrs. F. G. Murphy & Co. of that vicinity, have sold to R. A. Alexander, of Woodford, Ky., the following brood mares, at the prices annexed: Motto $1000, Sally Ann $1000, Bettie Lewis, $1000, Kate Quinn $500.

Gas Lime as a Fertilizer.—Can you enlighten me as to the value of Gas lime as a fertilizer? There is a strong prejudice in my neighborhood against its use, many believing it to have an injurious rather than a beneficial effect. J. H. [We should be glad to hear from some of the farmers of this county, who have used the refuse lime from the gas-works of this city, on this subject. In the mean time, we refer J. H. to the 7th Vol. of the Co. Gent., pp. 201, 304, 314, for valuable information in relation to the use of Gas lime. We add the following, which we find in the last No. of the North British Agriculturist:—

Gas Lime as a Manure.—Having for three years past used above 400 tons of Gas Lime, I have found decided benefit from it, applied to wheat or beans, at the rate of four to five tons per imperial acre, as it is obtained from the Gas Works; either harrowed or plowed in before sowing—but the most marked effect is obtained by using it as a compost, mixing five to eight tons with the same quantity of earth or road scrapings, weeds, etc., and four cwt. of salt; allowing it to lie for three or four months before using. In 1854 I applied the above-noted quantities to parts of two old pasture fields, and where applied, the cattle, horses, and sheep continue to eat quite bare, while the other parts are left rough to the last. For beans, I find that lime from the Soap Works, used as a compost in the same quantities as Gas Lime, increases both the yield of the straw and grain, far beyond any extra manure I have yet tried. My farm is 400 feet above level of the sea—strong loam with clay subsoil—thoroughly drained in 1853-4, and every five yards, with three feet drains laid with oval tiles. West Riding, Yorkshire.



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Emery's	Patent Portable changeable 2 horse power,	$116
do	One horse power,	85
do	Thresher and Separator, 14x26 in. Cylinder,	40
do	Thresher and Cleaner, 14x26 inch Cylinder,	125
do	Complete sett 2 horse machines and bands.,	160
do	Complete sett 1 horse machines and bands,.	128
do	Complete sett 2 horse machines for Threshing and Cleaning,	250
do	Fan mill for hand or power five sizes,..	$21 to 32
do	Circular Cross Cut Saw Mill, 24 inch Saw,	37
do	Drag Cross Cut Saw Mill, five feet Saw,...	40
do	Circular and Drag Saws combined,........	80
do	Slitting Table and 12 inch Saw for above,..	7
do	Clover Mills and Cleaners,...........	$50 to 100
do	Cider Mill and Press,................	$40 to 45
do	Corn and Seed Planter for horse or hand,	$6 to 14
do	Churn. mach. for horse power, 1 or 2 churns,	12
do	Power Corn Shellers. two sizes, ...	$45 to 55
do	Dog and Sheep Churn Powers,........	15
Bands and sett extras, wrenches, &c.,...............		5

Extracts from Letters of Persons using them.

"Messrs. EMERY BROTHERS—In answer to your inquiry of whom and what kind of Horse Powers and Threshing Machines I purchased, and which is claimed by the proprietor of a competing firm in your city, in their adverments as of their manufacture with my certificate attached; I have to say that I purchased it from an agricultural dealer in Louisville, Ky. The castings have the words 'Emery's Patent' on them. It was a good machine, and I threshed eleven thousand bushels wheat, and one thousand bushels oats and rye, and my toll brought me one thousand dollars, after paying all expenses, all in the season of 1855. SAMUEL JOHNSON, Bonham, Texas, January 3d, 1856."

"Messrs. EMERY BROTHERS—I'm pleased with the operation of my Power and Thresher purchased from you this season, and have gotten out twenty-seven bushels of wheat per hour. I think I can beat the manufacturers in getting out wheat. My horses are light, weighing but 1,500 lbs. at most. Enclosed please find drafts, &c., &c. WM. T. HANNAFORD. Nansemond Co., Virginia. July 7, 1856."

"Messrs. EMERY'S.—I purchased of an agricultural dealer in Louisville. Ky., June, 1855, one of your patent Horse Powers and Threshing Machines, being the third I have purchased of the kind. We commenced thresh July 5th, have been surrounded with several others of different patterns. Have gone through the length and breadth of their circuits and finished jobs after the most noted machines, and came off victorious in every neighborhood. The first machine I sold. With one of the others my youngest son threshed nearly fifteen thousand bushels wheat and rye, and my oldest son with the other threshed ten thousand bushels, and then sold the machine. We could have sold the one we now have long ago. if we had desired to do so. This was all in the harvest of 1855. C. C. TAYLOR. Pulaski Co., Kentucky, Jan. 7th, 1856."

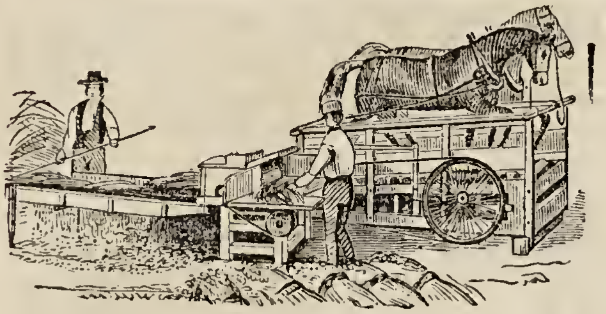
In addition to the above recommendations should be named the fact that the highest premiums were awarded the above machines over all others at the following State Fairs during the past season:

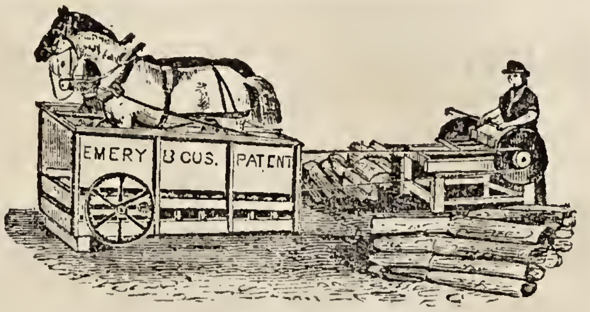
New-Jersey at Newark, Iowa at Muscatine,
Pennsylvania at Pittsburgh, Kentucky at Paris,
Michigan at Detroit, Tennessee at Nashville,
Ohio at Cleveland, Tennessee at Knoxville,
New-York, at Watertown.

and at a large number of County and other Fairs. They were also exhibited and received especial premiums and commendations at the following State Fairs—they being by regulations of the Societies excluded from competition—being out of the States.

Indiana at Indianapolis, Illinois at Alton,
Wisconsin at Milwaukie, Georgia at Atlanta,
Virginia at Richmond.

Albany, Jan. 1, 1857.





EMERY BROTHERS,

Proprietors of the Albany Ag. Works, Albany, N. Y,

Manufacturers and Dealers in Agricultural machinery—calculated for Horse, Steam or Water Power.

Among the leading articles are Emery's Patent Railroad Horse Powers and Threshing Machines—with separators, also with cleaners combined.

EMERY'S PATENT HORSE POWERS

are closely imitated and offered in various markets for sale, and not unfrequently as of the genuine manufacture, by a competing firm in this city, whose stock in trade, to a large extent, consists in maligning and misrepresenting persons and facts concerning the Proprietors and business of the

ALBANY AGRICULTURAL WORKS,

as well as *themselves* and *their* counterfeit and infringing wares, which not unfrequently has the intended effect to palm off a much inferior article as the genuine, and by holding out greater inducements to dealers in way of commissions, (which the profits of the genuine article cannot afford,) induce such agent thereby to purchase the inferior and infringing machine for sale to their unsuspecting customers, as well as many other articles in imitation and in violation of the Patent Rights of the Proprietors of these works, for which, suit for damages for said infringements has been commenced in the United States Courts, before whom the case will be tried on its merits as soon as it is possible or practicable, when the proprietors have no doubt of the issue in favor of the Patents, and justice rendered for past infringements.

Thus far, no trial having been had, or decisions on the merits of the case been given, certain publications to the contrary notwithstanding, which have been made for and paid by said competing firm, and styled Legal Notices, &c., &c., and published in newspapers, circulars, &c.

To distinguish Emery's Patent Improved Horse Powers from all others, it is only necessary to examine the following points, all of which are important and give to them their world wide reputation; *none of which are found in other powers.* All the castings have the words Emery or Emery's Patent in raised letters on them.

The small shafts of the endless chain have a double shoulder turned upon them, the outer one for keeping the small wheels apart and on the track and from wearing against the links of the chain. The several geers and pullies are all confined to their shafts by substantial couplings, with large screws and nuts upon the outside, similar to that upon a wagon axle.

The geers and pullies can be transposed, and thereby produce several degrees of force and motion required for different purposes; also for making it a right or left-handed power; all of which is done by the simple process of removing the nuts and changing the geers and pullies, (*while with others it is necessary to remove and reverse the shafts themelves, end for end, to change it from right to left, and without the means of varying their force and motion.*)

They are also constructed with a complete circuit of heavy cast-iron track, which is not the case with others. Thus making a difference in the cost of construction at least 10 per cent. greater than the best of others. Their Threshers and Separators are still more expensive and perfect in their construction, the differences often producing results from 50 to 100 per cent. greater than the best of others of similar construction, even when both kinds are driven by the SAME HORSE POWER.

They are all made right and left handed, and may instantly be so changed. The pullies for the cylinder are provided with spring ratchets, and while they drive in one direction they move freely upon the shaft in the opposite, thus allowing the Horse Power to be stopped instantly and easily without straining the band or geering, the cylinder being free to run until it loses its momentum.

The Separator crank has a twenty-four-inch cast-iron face pulley over which the main band passes, giving to it the required motion, the said iron pulley serving as a balance wheel to the crank and producing a smooth and steady action or motion. The cylinders are all first balanced stationarily as with others, but are afterwards subjected and adjusted to a velocity double that required for threshing grain. This last is an important process, often doubling their utility, efficiency and durability. [The cylinder heads are solid cast-iron and fitted to heavy cast-steel shafts extending through and through.

The journal boxes are all made in two parts and lined with a composition of tin and antimony, the best known material for the purpose, thus admitting of being adjusted as they may become worn and loose.

The Thresher frames are constructed with a substantial bottom or sill timber extending nearly the length of the machine upon the floor or ground, thus giving them a greater base and firmness than when simply standing upon four legs with narrow base. The concaves are adjustable in every direction.

The cylinders for all their threshers, whether operated by one or two horses, are 26 X 14 inches, being one-fourth more capacity than those of any other maker for one-horse power, and the same as the largest for two horses.

The frames of the Threshers extend fully to the top, instead of the upper works being constructed by simple planks bolted together edgewise.

No exertions will be spared to meet the wishes of those dealing in and using the class of implements they manufacture. The public may rest assured the reputation heretofore earned for their machinery, &c., shall be fully sustained, by employing none but the best material and workmanship, and by strict attention to business, they hope to merit and enjoy a continuance of the patronage heretofore so liberally bestowed.

LOCAL AGENTS, in all the principal towns and cities in this and other countries, where none are already established, are solicited, to whom, if well accredited, most liberal terms will be afforded for making this business a safe and profitable investment. All correspondence promptly attended to. ☞ Full Descriptive Illustrated Price Catalogues sent gratis on application. EMERY BROTHERS.

Albany, Jan. 1, 1857.—w1tm1t.

STUDY YOUR PROFESSION!

FARMERS who would improve their minds as well as their farms, and who would have their sons love Farming, should procure the following books:

Norton's Elements of Practical and Scientific Agriculture, ...	$ 60
Nash's Progressive Farmer,....	60
Johnston's Elements of Ag. Chemistry and Geology,.	1 00
Johnston's Agricultural Chemistry.	1 25

Sent free of Postage on receipt of price.

C. M. SAXTON & CO.,
Agricultural Book Publishers,
140 Fulton-st., New-York.

Book Agents, Farmer's Sons—everybody with a small cash capital can make money by selling our popular Agricultural Books. Discount liberal. Catalogues free.

Jan. 1—m1t

HAY PRESSES.

DEDERICK'S Celebrated PARALLEL LEVER Portable and Stationary HAY PRESSES, patented May 16th and June 6th, 1854—which (at about the same cost of transportation as a Railroad Horse Power and Thresher,) are now being forwarded to all parts of the country, and are in every case giving the most decided satisfaction; which (with two men and a horse) are warranted to bale from six to nine tons of hay per day, according to the No. or size of the press—and which are sold for from $100 to $175. For circulars, with full explanatory engravings, and numerous first class references, apply personally or by mail to WILLIAM DEERING & CO.,
Manufacturers, Albany, N. Y.

Dec. 11—weow&mtf

NURSERY STOCK.

10,000 ANGERS QUINCE, 10,000 Apple Seedlings, 5,000 Peach, one year from bud, 30,000 one-year-old Apple Grafts, for sale by

WILLIAMS & CHAPMAN,
Dec. 11—w3tm1t* Fayetteville, Onondaga Co., N. Y.

Short-Horns for Sale.

FAIRMOUNT, (490,) and 6 thorough-bred Short-Horn Bull Calves for sale by E. MARKS. of Camillus, Onondaga Co., N. Y. Dec. 11—w6tm1t*

Peruvian Guano,

GOVERNMENT Brand and Weight. For sale by

A. LONGETT,
Jan. 1—m2t 34 Cliff-st., (corner of Fulton,) New-York.

PARTNER WANTED, with $5,000, in the Agricultural Implements, Fertilizer, and Commission business, in the City of New-York, now doing a good, safe and profitable business, which can be largely extended. For particulars address, J. ALEXANDER, Box 3230, New-York Post Office. Dec. 18—w2tm1t.

Chinese Potato, Imperial White,

THE same as exhibited by us at the Crystal Palace Fair, ours being the only ones of American growth—$20 for 100, $5 for 20, $3 for 12. Imported tubers and root cuttings, of uncertain varieties, not guaranteed, $65 per 1000, $7 per 100, $4 for 50, $2 for 25, with full treatise on culture. Orders for $5 or under, cash—larger orders one-third cash and balance on delivery in the spring by Express. Chinese Sugar Cane seed—packages of fresh seed for one-half acre, $1, with directions. Earth Almond, $1 for 50. Licorice—$10 per 100, $3 per dozen. Osier scions—$2 to $5 per 1000. Lawton Blackberry—$25 per 100. $4 per dozen. Victoria and Linnæus Rhubarb—$9 per $100. Madder—$10 per 100. Giant Asparagus, $4 to $6 per 1000. King Philip Corn, Orange Water Melon, with a most extensive collection of Vegetable, Flower, Agricultural, Tree and Shrub seeds in the Union, *all warranted.*

N. B. Priced Catalogues of Trees, Plants and Seeds will be sent to applicants. WM. R. PRINCE & CO.,
Dec. 18—w3tm1t* Flushing, N. Y.

Columbian Guano,

IMPORTED by the Philadelphia Guano Co.

A. LONGETT, Agent.
Jan. 1—m2t 34 Cliff-st., (corner of Fulton,) New-York.

TAKE THE BEST.

A New-England Family and Political Journal.

THE LARGEST, MOST VARIED AND CHEAPEST PRINTED.

The Springfield Weekly Republican.

Published at Springfield, Mass., by Samuel Bowles & Company.

THIS popular Family and Political Journal unites the excellencies of the large city weeklies, which it is equal in size, with the local details and variety of New-England country newspapers, besides several important features peculiar to itself.

It is handsomely printed in a quarto form, with eight pages and 48 columns, nearly all given up to Intelligence of every kind, carefully prepared under appropriate heads, Editorials, Agricultural Review and Summary, the city and local Markets Miscellany, Poetry, Tales, &c., in great variety.

With the beginning of the new year it commences AN ORIGINAL NEW ENGLAND NOVEL, charmingly written by an accomplished lady author of Massachusetts.

The REPUBLICAN has four editors, including Samuel Bowles and J. G. Holland, and while independent in all its discussions, is heartily in sympathy with the political reforms proposed by the great national Fremont movement of 1856.

Now is the time to make up clubs and subscribe. Single copies $1.50 a year; 10 copies to one address $12,50; 20 copies $20, and the same rate for larger numbers,

The REPUBLICAN is mailed to all parts of New-England early Friday morning, and contains one day's later news than the New-York weeklies of the same (Saturday's) date.

Address SAMUEL BOWLES & COMPANY,
Jan. 1—m1t Springfield, Mass.

DIOSCOREA BATATAS—NEW CHINESE POTATO OR YAM.—The experience of another season in the cultivation of this new esculent, warrants us in confirming all we said in relation to it last year. Wherever it has fallen into the hands of judicious cultivators, and received the care necessary to its full development, the result has been entirely satisfactory in all respects, and it may confidently be reaffirmed, that "of all the esculents proposed as substitutes for the diseased potato, the Dioscorea Batatas is certainly the only important one." We can now supply small roots from 4 to 9 inches long, carefully packed for transport at $3 per dozen; and small seed tubers (such as we sold last season,) at $1 per dozen, or $7 per hundred; these latter can be sent by mail. Description and directions for culture furnished with each package. Where practicable, parties are invited to examine the roots before purchasing.

NEW CHINESE NORTHERN SUGAR CANE.—We can supply seeds of this celebrated invaluable plant in packets at 12½ cents each, or 75 cents per pound in quantity.

Also, CHUFAS or EARTH ALMONDS, NEW ORANGE WATER-MELON, KING PHILIP CORN, &c., with the largest and most comprehensive assortment of VEGETABLE, FLOWER, and FIELD SEEDS to be found in the United States.

J. M. THORBURN & CO., Seedsmen, &c.,
Dec. 18—w4tm1t. No. 15 John-st., New-York.

THE NEW-YORK OBSERVER,

A Religious and Secular Family Newspaper, will commence on the 1st of January next its Thirty-fifth Volume.

It is the Largest Newspaper in the World,

Published Weekly, and devoted to Religious, Literary and Secular Intelligence of every variety. Its Mammoth Sheet is so arranged as to constitute

TWO COMPLETE NEWSPAPERS;

The one Religious and the other Secular, each of which is larger than a majority of its cotemporaries—and unlike them also,

It is not sectarian in Religion, nor partisan in Politics,

But designed for a pleasing and instructive companion in every Evangelical Christian Family.

A large number of the best writers of the age as special Contributors, and Correspondents in all the principal Countries of the World, are united with a full Editorial Corps of long experience, to give interest and value to the paper.

THE RELIGIOUS DEPARTMENT,

Besides its Editorial Articles and Correspondence, contains a Summary of the most important movements of all CHRISTIAN DENOMINATIONS.

THE SECULAR SHEET,

In addition to the Foreign and Domestic News, has departments of Agriculture, of Science, and of Commerce—the latter embracing full and accurate Reports of the Money, Produce, Cattle and other Markets up to the time of going to press.

The Conductors of the Observer will spare no expense or effort to maintain for their Journal the high reputation it has always possessed. No Journal ever retained for the same time so large and so permanent a list of Subscribers as the New-York Observer. It has several times passed the ordeal of party and sectional strife. Religious and Secular, with little or no variation in the list of its subscribers. Of those who have left it in the excitement of the moment many have returned again, unsatisfied with controversial and party organs as a substitute.

It has attained its large circulation MAINLY BY VOLUNTARY SUBSCRIPTIONS and the kind agency of its subscribers.

Specimen numbers of the Paper will be sent free to all applicants. A copy of our Bible Atlas, with colored Maps on paper of large size and best quality, will be sent gratis to every person who pays for a year in advance.

WILL EVERY READER seek to obtain one or more Subscribers to commence on the first of January next with the volume? Many who have made an earnest effort have sent us a dozen or twenty as the fruit of a few hours' labor.

The price of the Observer is $2.50 a year IN ADVANCE. One Dollar and Fifty Cents will be deducted AS COMMISSION from the price of THREE NEW SUBSCRIBERS sent us at one time; OR ANY OLD SUBSCRIBER, sending us the name of TWO NEW SUBSCRIBERS and Six Dollars, shall have receipts for the three subscriptions, for one year, provided his own is paid in advance.

A MORE LIBERAL commission will be paid to any one who will send us twenty or more new subscribers.

Address SIDNEY E. MORSE & CO.,
Editors & Proprietors,
Dec. 11—w3tm1t 138 Nassau-st., New-York.

Suffolk Pigs for Sale.

I HAVE now for sale twenty-three thorough-bred Suffolk Pigs—four litters from one to six weeks old, that will pair well for breeding.

Prices, well boxed and shipped as freight or by express,
6 to 9 weeks old, $25 per pair or $15 single.
9 " 12 " 30 " 20 "

Catalogues containing full pedigrees will be forwarded upon application to
THOS. GOULD,
Nov. 27—w3tm1t Aurora, Cayuga Co., N. Y.

THE HORTICULTURIST,

AND

Journal of Rural Art and Rural Taste.

COMMENCED BY A. J. DOWNING,
Author of "Landscape Gardening," "Designs for Cottage Residences," "Fruit and Fruit Trees of America," "Country Houses," etc.
EDITED BY J. JAY SMITH, EDITOR OF THE NORTH-AMERICAN SYLVA.

THIS popular publication, which is gradually extending its influence throughout the country, and is becoming indispensable to the tasteful Gardener, the Fruit Culturist, and the Floriculturist, will be continued under the editorship of J. JAY SMITH, whose ability and taste in matters of country life are highly appreciated through the country.

The cultivation of the beautiful, both in Nature and Art, is justly esteemed an important element in education, and recommends itself to the attention of all who wish to make their dwelling and grounds attractive, and to surround themselves with those luxuries and adornments that spring from the fruitful bosom of the earth when cultivated by the practical hand. The typographical execution of the HORTICULTURIST is designed to be an index to its contents—neat, chaste, and elegant. It embraces within its scope—

I. THE DESCRIPTION AND CULTIVATION OF FRUIT AND FRUIT TREES—a subject of vast importance, and in which we are already more interested than any other people.
II. THE DESCRIPTION AND CULTIVATION OF FLOWERS AND FLOWERING PLANTS AND SHRUBS, from the most delicate and tender to the most hardy and robust.
III. TO THE DESCRIPTION AND CULTIVATION OF ALL EDIBLE PLANTS, which are, or should be, grown in our gardens.
IV. TO GARDENING AS AN ART OF TASTE—with Designs for Ornamental or Landscape Gardening.
V. TO RURAL ARCHITECTURE—embracing Designs for Rural Cottages and Villas, Farm Houses, Lodges, Gates, Vineries, Ice Houses, etc., etc.
VI. TO ARBORICULTURE—or the Planting and Culture of Forest and Ornamental Trees.
VII. TO BOTANY AND ENTOMOLOGY—so far as these branches are connected with the general subjects to which the work is specially devoted.

The extended and valuable correspondence of THE HORTICULTURIST presents the experience of the most intelligent cultivators in America: the superior illustrations, and the instructive and agreeable articles from the pens of the editor and contributors, make it eagerly sought after by even the general reader interested in country life. To all persons alive to the improvement of their gardens, orchards, or country seats—to scientific and practical cultivators of the soil—*to nurserymen and commercial gardeners*, this Journal, giving the latest discoveries and improvements, experiments and acquisitions in Horticulture and those branches of knowledge connected with it, will be invaluable.

A NEW VOLUME (12th year) commences with the January number for 1857; and it will be the constant aim of the editor and the publisher, by every means in their power, to render it still more worthy, by every practicable improvement, of the liberal patronage it is receiving.

The work is issued on the first of each month, in the best style of the periodical press, each number containing 48 pages, embellished with a frontispiece and several other original and well-executed engravings. At the end of the year it will make a volume of *six hundred* pages, beautifully illustrated with over one hundred engravings, many of them drawings of fruit and flowers from nature. These volumes, if taken for a number of years, will make a valuable Encyclopedia of Horticultural Literature.

TERMS—Two Dollars a year.

An edition is published with plates colored in the best style of the art—Price $5.

☞ Subscriptions must be addressed to the Agents,
Or to ROBERT PEARSALL SMITH,
17 & 19 Minor-st., Philadelphia, Pa.

Specimens sent on application, inclosing P. O. stamps.
Dec. 4—w3tm1t

TO BEE-KEEPERS.

M. QUINBY, the most extensive Bee-keeper of the age, will send his "MYSTERIES OF BEE-KEEPING EXPLAINED," TO ANY ADDRESS FOR ONE DOLLAR, FREE OF POSTAGE. Address
M. QUINBY.
Nov. 27—w3tm1t* St. Johnsville, Montgomery Co., N. Y

Suffolk Pigs and Brahma Fowls.

MY SUFFOLK BOAR "PRINCE ALBERT," 16 months old, is for sale—he is a *fine animal.* I shall have a few pairs of pigs of his get for sale soon—price $12 to $15 the pair at 10 weeks old. Also a few pairs or trios of *Brahma Fowls.* Give me a call.
E. G. COOKE,
Nov. 13—w2tm2t* Belleville, Jefferson Co, N. Y.

The Horse, Most Noble Animal.

THAT indefatiguable laborer in behalf of true Veterinary Science, Dr. GEORGE H. DADD, has in press to be published by us during the winter, the most superb work on the Horse ever published in the world, entitled

The Anatomy and Physiology of the Horse.

In one large octavo vol. of 300 pages. Illustrated with 20 superb Anatomical Plates of the Horse, from a great French work.

Price with colored plates, ... $4
do uncolored do. 2

Orders for this elegant and valuable work in advance of publication, are solicited by the Publishers.

Also, just published, the Eleventh Thousand of

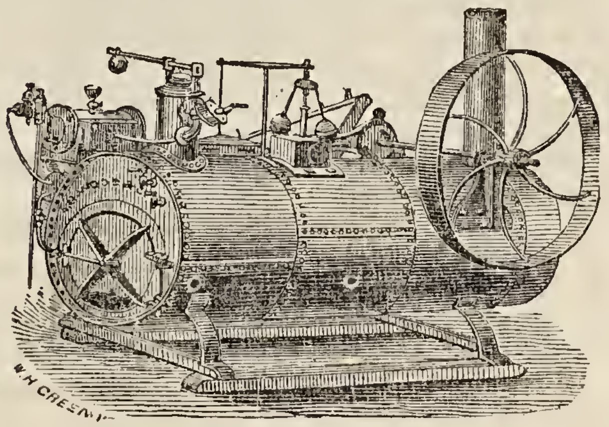
The Modern Horse Doctor, by Dr. George. H. Dadd.

Undoubtedly the best work ever issued from the American press on THE CAUSES, NATURE AND TREATMENT OF DISEASES AND LAMENESS IN HORSES. Price $1. Every man who owns a Horse, should own this book.
JOHN P. JEWETT & CO, Publishers.
Oct. 30—w&m4t 117 Washington street, Boston.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,
GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.



PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

	PRESENT LIST OF PRICES.	*Weight.*
2½ horse power,	$225	1500
3 ...... do	$275	1800
4 ...... do	$340	2000
6 ...... do	$520	3500
8 ...... do	$680	4500
10 ...... do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.
Jan. 31—wtf—May 22—mtf A. N. WOOD & CO.

PROSPECTUS FOR 1857.

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4th, 1821.

The publishers of this old and firmly established paper take pleasure in calling the attention of the public to their programme for the coming year. Surfeited with politics, the claims of Literature will be more than ever appreciated by the reading world. We have therefore already made arrangements with the following brilliant list of writers :—

WILLIAM HOWITT, (*of England*,) ALICE CARY, T. S. ARTHUR, MRS. SOUTHWORTH, AUGUSTINE DUGANNE, MRS. M. A. DENISON, *the Author of* "*ZILLAH*," *&c.*, *&c.*

We design commencing, in the first number in January next, the following original novelet :—

TALLENGETTA,

OR

THE SQUATTER'S HOME.

By WILLIAM HOWITT, author of "Rural Life in England," "Homes of the Poets," &c., &c.

This is a STORY OF AUSTRALIAN LIFE, Mr. Howitt having visited Australia expressly with the object of acquainting himself with the novel and romantic aspects under which nature and society present themselves in that singular region.

The following Novelets will then be given, though probably not in the exact order here mentioned :—

THE STORY OF A COUNTRY GIRL.

By ALICE CARY. An original Novelet, written expressly for the Post.

THE WITHERED HEART.

An Original Novelet, written expressly for the Post, by T. S. ARTHUR.

LIGHTHOUSE ISLAND.

An Original Novelet, by the author of "MY CONFESSION," "ZILLAH, OR THE CHILD MEDIUM," &c.

THE QUAKER'S PROTEGE.

An Original Novelet, by MRS. MARY A. DENISON, author of "MARK, THE SEXTON," "HOME PICTURES," &c.

AN ORIGINAL NOVELET,

By AUGUSTINE DUGANNE, author of "THE LOST OF THE WILDERNESS," &c., is also in course of preparation for the Post.

We have also the promise of a SHORT AND CONDENSED

NOVELET by MRS. SOUTHWORTH,

to run through about six or eight numbers of the Post.

☞ In addition to the above list of contributions, we design continuing the usual amount of FOREIGN LETTERS, ORIGINAL SKETCHES, CHOICE SELECTIONS from all sources, AGRICULTURAL ARTICLES, GENERAL NEWS, HUMOROUS ANECDOTES, View of the PRODUCE AND STOCK MARKETS, THE PHILADELPHIA RETAIL MARKETS, BANK NOTE LIST, EDITORIALS, &c., our object being to give a Complete Record, as far as our limits will admit, of the Great World.

ENGRAVINGS.—In the way of Engravings, we generally present two weekly—one of an instructive, and the other of a humorous character.

The Postage on the Post to any part of the United States, paid quarterly in advance, at the office where it is received, is only 26 cents a year.

TERMS (Cash in advance)—Single Copy $2 a year.

4 COPIES		$ 5 00	a year.
8 "	(And one to the getter up of the Club,)	10 00	"
13 "	(And one to the getter up of the Club,)	15 00	"
20 "	(And one to the getter up of the Club,)	20 00	"

Address, *always postpaid*,

DEACON & PETERSON,

NO. 66 SOUTH THIRD STREET, PHILADELPHIA.

☞ **SAMPLE NUMBERS sent gratis to any one, when requested.**

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it, (the notices of new contributions and our terms,) for their *editorial* columns, shall be *entitled* to an exchange, by sending us a marked copy of the paper containing the advertisement or notice. Dec. 1—weow2tm2t

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Improved Short-Horns for Sale.

THE Herd of the subscriber being too large for the size of his farm, he wishes to dispose of four very superior cows, all got by imported bulls, and five heifer calves got by imported Bates' bull Lord Ducie (13,181) out of some of his best cows. Also roan bull calf Beaufort.got by Lord Ducie (13.181) out of Daisy 7th by Duke, 444 A. H. B., &c., &c. The cows for sale are very superior milkers, as are also the dams of the calves. Direct DR. HERMAN WENDELL,
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E. G. COOKE.
Nov. 13—w2tm2t* Belleville, Jefferson Co., N. Y.

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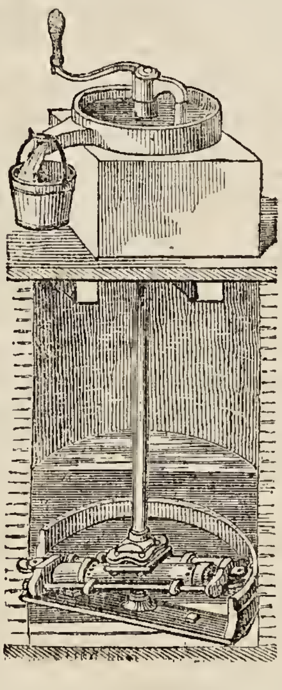

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Commission Merchant, 56 John-Street, N. Y.
For sale also by H. LINDSEY, Inventor, Asheville, N. C.
July 3—weow2tm6t

Contents of this Number.

THE FARM.

The Twenty-Fourth Volume of The Cultivator, 9
Mistaken Reasoning, 10
A Day or Two in Fayette Co., Ky., 11
Indian Millet, or Doorah Corn, by L. Bartlett, 12
Experiments with Potatoes, by S. H. Cowles, 12
Chinese Sugar Cane, by S. H. Cowles, 12
Effects of Under-Draining, by A Constant Reader, 15
Application of Yard Manure, by A Reader, 15
Dioscorea Batatas, by L. Bartlett, 16
The Chufas or Earth Almond, by H. B. Lum, 16
Experiments in Manuring Potatoes, &c.—Nitrate of Soda on Wheat—Superphosphate of Lime for Root Crops—How to Apply Artificial Manures, by J. Levesque, Jr., 17
Application of Barn Yard Manures, by C. B. Meek, 18
Good Seed—Where to Look for it, by J. W. Scott, 20
Emery's Drag Cross Cut Saw-Mill, 22
Oil Producing Seeds and Plants, 22
Selecting Corn and Potatoes for Seed, 22
Willis' Improved Stump Puller, 22
Report of Virginia State Ag. Society, 24
Winter Wheat in New-Hampshire, by L. Bartlett, 26
Notes from Onondaga Co., by S, 26
Notices of New Books, 24, 27
Practical Remarks on Manures, by G. T. Hammond, 28
Saw Dust as a Litter for Stables, 28
Trial of Seeds from the Patent Office, by E. L. Coy, 29
Notes for the Month, 30
Inquiries and Answers, 32

DOMESTIC ANIMALS.

Female Cashmere Goat, 21
Original Justin Morgan Horse, 24
Dorking Fowl, 13
Horse Distemper and Heaves, by H. A., 18
Bee Houses not Necessary, 20
Purely Bred Animals, 23
Profits of Poultry Keeping, by W. E. Haxtun, 27
Sale of Benj. Warfield's Shorthorns, 29
Death of Black Hawk, 31

THE HORTICULTURIST.

Destructive Apple Insect, by H. T. Vose, 10
Two New Currants Described, 13
The Ground Cherry, 15
Growing Hedge Thorns from Seed, 15
Northern Muscadine Grape, 29
Gum on the Peach, 15
Western Apples Described, 19
The Best Time for Cutting Grafts, 19
Banking Up Permanently Against Trees, 20
Orange and Christina Melons, by A. S. Moss, 21
Peabody's Seedling Strawberry, 25
Concord Grape, 26

THE HOUSEWIFE.

Three Recipes for Cakes, 21
Hardening Tallow for Candles, 21
Recipes for Cookies, Gingerbread, &c., 28

ILLUSTRATIONS.

Cherry and Grape Currants, 13
Dorking Fowls, 14
Carolina Red and Sweet June Apples, 19
Female Cashmere Goat, 21
Emery's Drag Cross Cut Saw-Mill, 22
Original Justin Morgan Horse, 24
Peabody's Seedling Strawberry, 25

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Jan. 1—m2t

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FORBES.

THE CULTIVATOR.

VAN VRANKEN. N.Y.

THIRD — To Improve the Soil and the Mind. — SERIES.

Vol. V. ALBANY, FEBRUARY, 1857. No. II.

Theory of the Application of Stable or Yard Manure.

The letter of John Johnston of Geneva, recently quoted from the Genesee Farmer, (see Co. Gent. Vol. 8, p. 299,) has excited much interest, for it is of the utmost importance to know how to apply manure to the best advantage. Mr J. announces "that for the last twenty years he has acted in opposition to theorists in the application of barn-yard manure," and yet has obtained most satisfactory crops. So far as opposition to theorists is concerned, Mr. J. is very likely right; but it is certain that all remunerative practice must have a rational basis, and to signify this basis the word theory is legitimately employed. However Mr. J.'s practice is opposed to crude and imperfect theories, it cannot conflict with *the true and complete Theory*.

This true theory is the only key to a perfect practice; and to make our theories approach completeness is, then, a most desirable object.

A characteristic of good theory is *breadth*. It is not derived from a narrow observation, and is not a hasty stroke of fancy; but comes from large knowledge and careful reflection. Every successful farmer like Mr. J., contributes by his operations and results, to the materials from which Theory is to be elaborated, and yet from no one farm, or kind of practice, can we learn in all their comprehensiveness, the great guiding truths of agriculture.

These remarks are suggested by the attitude so often assumed by agricultural writers with regard to Theory. "We are not among the theorists"—"without fear of being called a theorist," are examples that have occurred in comments on Mr. J.'s communication. It is a pity that so good a word as theory, which has the best reputation among the best philosophers, should be a scape-goat in agricultural literature. This will be mended as agriculture becomes more philosophical.

Thus much about Theory in general. Now for the Theory of the application of manures. Suppose we spread manure on the surface of grass land in the fall, and let it lie through the winter—what will happen? If the manure contains or yields ammonia by decomposition, doubtless some of this substance may escape into the atmosphere and be lost. But in "well rotted manure" the fermentative process has passed its period of activity; the carbonaceous matters of the straw and dung have become humus-like, and decompose slowly, and the ammonia they contain is probably in such a form that its escape by exposure must be very slow. Any ammonia that may be evolved passes into an atmosphere filled with the blades of grass, and without doubt is quite thoroughly economised by these living absorbers.

The soluble portions of the manure are washed into the soil, and if the latter contain only a few per cent of clay in its composition, there is little fear that any of these substances will be lost, or pass down below the reach of plants. The distance to which soluble matters may penetrate the soil under the action of rains, must depend on several circumstances, and principally on the retentiveness of the soil for soluble bodies, (the salts of the manure) and on the frequency and quantity of the rains. A pure sand has next to no retentive power; a pure clay has the greatest. Between these extremes there are numberless intermediate degrees of retentiveness. When a dilute solution of potash, ammonia and phosphoric acid, or what amounts to the same, putrid urine or sewage water, is filtered through a layer of soil, the first portion of water that passes through is quite free from these bodies; they have been, in fact, retained by the soil. If the solution is continuously poured on after a certain amount of pure water has passed, the soil becomes, so to speak, saturated with the solid matters, and they appear again in the water that flows through. If, now, the soil thus charged with potash, &c., is treated with a sufficient quantity of pure water, these bodies are generally washed out again, and may be completely (?) removed.

When a heavy rain falls on the ground, something quite similar takes place. The soluble surface matters, from manure or otherwise, are carried down into the soil, but are permanently retained within a certain distance from the surface, which distance is less as the quantity of rain is less, and the retentive power of the soil greater.

Now a very heavy rain wets down only a few inches, and accordingly we have very little reason to fear any considerable loss of soluble matters from the upper soil, if it be not too light in character, and if, being thorough drained or not naturally porous, the rains soak into it, and do not run off from the surface.

In the spring, then, we have our grass land that has been manured after Mr. Johnston's plan, ready to break up for corn; and if we compare its condition with similar unmanured land, we find the former has a much heavier sod than the latter, as the effect of the fall manuring.* This sod is also charged with the soluble matters of the manure. If now we invert the sod by the plow, and put our seed-corn into it, it is obvious that the manure is just where it is wanted, viz., *distributed uniformly* through the upper stratum of the soil, and thus within reach of the roots of the *young* plant. Were the manure spread with a fork, i. e., in a very rough and imperfect manner, on the sod, and then immediately turned under to a depth of 5 or 6 inches, it could do the corn little good until its roots should strike down to that depth. Then they find the manure in one narrow layer, and may easily be injured by its rankness and strength. (?).

The superiority of the practice of planting on inverted sod, has long been fully recognized. The reason lies in the accumulation of plant-food at the surface of the soil, by the roots and leaves of the grass, and in the ready and regular delivery of these stores of food to the young plant by the decay of vegetable matter. It is highly probable that in the case under consideration, the soluble matters of the fall manuring, to a good degree, enter first into the grass, and then are by its decay yielded to the corn. The grass itself is made more susceptible to decomposition by the increased rankness of growth in autumn.

The practice of Mr. J. in applying manure (well rotted) to wheat just before it is sowed, and harrowing both in together, or top-dressing the field after the wheat is sown, is in accordance with good theory. The spring or fall rains to which the farmer looks to give the seed a start, and encouraging its early growth, in either case puts the manure just where the young plant needs it.

In the Co. Gent. of Dec. 11, Mr. Meek, in his remarks on this subject, states that his experience and practice are the reverse of Mr. Johnston's. He recommends to plow under fresh manure just before planting corn. Mr. M., I infer, does not break up grass land for the corn-crop. Mr. M. says—"Let such manure, (good solid manure, full of rich juice and fresh,) be evenly spread and quickly plowed under, and I maintain, without any fear of being called a theorist, that it is a more economical way of applying manure than to let it lie so long on the top of the ground, 'wasting its sweetness on the desert air.' "

Probably Mr. J.'s plan of using "well-rotted" manure is best; very likely too, Mr. M.'s way of applying fresh "manure full of rich juice," is also best. Whatever issue there may arise between the two methods, resolves itself to the question—Is it better to use fresh or well-rotted manure? Some remarks on this subject may follow. S. W. J.

◆◆◆

Bodily and Mental Laziness.

A foreigner who had travelled through many countries, was asked what leading quality or characteristic he had observed most conspicuous and common to mankind everywhere. He answered in broken English, "Me tink dat all men *love lazy!*"

This disposition, which by indulgence, soon becomes a strong habit, is certainly very general, if not universal. It is not by any means confined to the habits of the body, but has a most especial control over the mind. *There are many men of very active bodies, who have very lazy minds.* We have employed many laborers who were quite willing to perform regular and severe work with their hands, who could *never be hired to think.* Mental laziness is more formidable than physical. We often meet with men who profess a great abhorrence of indolence, who, nevertheless, have very indolent habits of mind.

This mental laziness shows itself in a thousand ways in farming. Nothing impedes so much the progress of improved agriculture. Although men are willing to to "work" from dawn till dark, they cannot bear the mental application of reducing their work to a system. They cannot be induced to undergo the drudgery of mind required to plan all their work beforehand, and to execute every item with promptness and precision. They will not provide a place for everything, and see that everything is kept in its place. As a consequence, many things are left out of order, and precious days are wasted in their search, at critical periods. Jobs are left unfinished, and in confusion. Operations, whose success depends wholly on a seasonable performance, are ruinously delayed.

There are, of course, many honorable exceptions—men whose farms show neatness, finish, and luxuriance in every part; whose work goes on with clock-work regularity; and whose well-kept implements, arranged like the alphabetical words of a dictionary, can always be turned to and found in a moment.

But even with *these*, there is often a large share of indolence on one point. It is in testing the accuracy of disputed or imperfectly established opinions, by well-planned, careful and measured experiments. An Indian was asked what kind of work he liked best. He answered, "Me like best to sit in the shade of tree, and see white man work!" Some very good farmers resemble him in wishing others to perform experiments for them, while they enjoy the benefit of the results.

A large number of instances have occurred within the past four years, of this unwillingness to take hold and decide important questions. The Shanghai controversy is an example. The agricultural papers were occupied with long disputes, which were the best breeds of fowls, and the advocates of the older Polands and Dorkings contended with the more numerous admirers of the Cochin Chinas and Brama Pootras; but neither seemed disposed to submit the question to the test of measuring the food and weighing its products. The same sort of controversy is now going on between the respective breeders of Devon and Durham cattle, with about the same prospect of a satisfactory solution. Other questions, such as early and late cutting of hay; the comparative value of grain and roots; the influence of succession or rotation on the amount of crops; the relative economy of high and close pastured grass; the exact acreable increase from the use of various manures, and many others, remain unsettled from the same cause. There is too universal a disposition to sit in the shade of the tree, like the Indian, and see others labor in these experiments—with the only difference that almost nobody labors in them; and guess-work is substituted for demonstration.

Every young farmer should begin life with *good habits.* Not merely good habits of physical industry, but with a constant use of his *thinking machine;* first, to establish a general system of perfect order throughout his premises, and then, by a proper combination of thought and personal activity, to determine practically, accurately, and reliably, every question of importance, having a direct bearing on any point of good management. A host of young farmers of this kind, would soon work a revolution in the practical agriculture of our country.

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☞ In addition to the endowment of an Agricultural Professorship in the University of Virginia by $20,000 from Hon. Philip St. Geo. Cocke, of Powhatan, in that State, as recently mentioned in our columns, we see it announced that J. G. Bruce, of Halifax, has offered to bestow $10,000 in aid of the cause of agriculture, in establishing a model farm.

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* I have recently learned from John T. Norton, Esq., of Farmington, Ct., that for many years he has practiced fall-manuring grass land with the most decided benefit, the effects of the application being speedily perceptible in the greener color of the grass; while spring manuring produces little increase of yield the first year.

Cheap Paints for Fences and Buildings.

The many inquiries we receive on this subject, induce us to give the results of any experiments we make or which come under our observation. Having had occasion recently, to erect and paint a board fence about three hundred feet long, the following mode was adopted. The fence was made of six horizontal boards, besides the cap, nailed to red cedar posts, and to avoid expense, the boards (of nearly clear stuff pine) were left *unplaned.* The expense of planing both sides by a machine driven with steam, would have been about five dollars.

The paint applied was made like common oil paint, ground water-lime being used for the pigment, not on account of any virtue it may possess from its properties as a cement, but because of its *cheapness*, costing about half a cent a pound. It may possibly, however, be much better than some other paints, as a fence coated once with it in mixture with oil three years ago, appears as perfect as the day it was applied. In order to give it a warmer tint, to correspond with the buildings adjacent, a small portion of *Brandon Red* was added. A single coat of this paint was then given to the fence, the rough boards retaining enough to be equal to three ordinary coats on planed boards. About nine gallons of oil were thus consumed, costing about eleven dollars. The pigment was valued at fifty cents; and about four days were occupied in mixing and applying it, at six dollars cost, the whole surface on both sides and the posts being painted. The total cost was nearly eighteen dollars.

The expense of this application, as compared with using white lead paint, applied in two coats on a planed surface, is as follows: Two coats of white lead paint are estimated to cost fifteen cents per square yard. There were on both sides of this fence and on the edges of the boards, over 172 square yards, which at 15 cents each would amount to about $26. Consequently eight dollars was saved in painting, and five more, at least, in planing, if done in the cheapest manner, making thirteen dollars additional, which would make white lead nearly double the expense of the mode adopted.

A barn, thirty by forty feet, and with an average height of sides equal to eighteen feet, would present an entire surface of 275 square yards, to paint which, in the manner we have described, on new unplaned pine siding, would cost a little less than thirty dollars. A coat of whitewash may be applied for a less expense than five dollars. Two coats of white lead would cost forty-one dollars, besides the expense of planing.

There is no excuse for any farmer in not giving at least one coat of lime-wash occasionally to his outbuildings, if he cannot afford anything better.

A limited trial of the *Brandon paints*, manufactured at Brandon, Vt., by the Brandon Iron and Car-Wheel Company, gives a very favorable opinion of them. Experienced painters who have used these paints for us, pronounced the *Brandon Red* superior in character to Venetian Red, and Brandon Yellow as decidedly better than Yellow Ochre; while at the same time they are furnished at only two cents per pound.

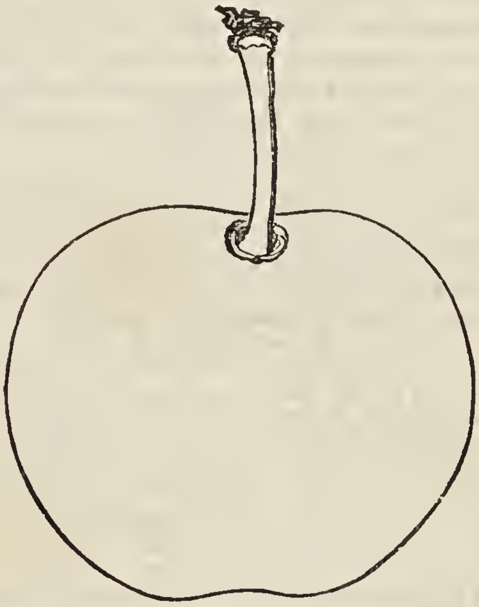
We have tried many experiments, and seen others try them, with those cheaper paints known as *washes*, of which a mixture of lime and water forms the basis. They are many times cheaper than oil paints, but still they are *washes*,—and more or less liable to be washed off or to scale off. White-wash of lime is, however, always valuable in its various modifications; and applied every two or three years to rough fence and rough out-buildings, serves a most valuable purpose in preserving the wood from decay and from moss, being worth many times their cost. But *oil paint* alone will endure unchanged and unaffected, all the changes of moisture and exposure.

Sugar Producing Plants.

Messrs. Editors—The query arises whether the "sugar beet" raised north of 40° north latitude, will furnish sugar enough to make it profitable? This question has been asked repeatedly, but from want of proper management, few if any have been willing to undertake the task, even for experiment. The extreme high price of sugar this year, resulting from the small crop south, and the enormous increase of consumers, has caused a great deprivation among the poor, of the article which of all others, they are reluctant to give up. Sugar and bread are the poor man's living two-thirds of the year. The only way for remedying this evil is to make our own sugar, and in such quantity as to reduce to a certain extent the price. The French have succeeded in using the "beet," and we might do so providing our farmers would undertake the experiment. Cornstalks furnish a large per centage of saccharine matters, (six per cent I believe, or about 300 lbs to the acre,) and the process is simple.

Perhaps a notice now and then in your paper would induce some one whose tastes incline that way, to make the experiment. It is my intention another year, to make a few experiments upon beets, carrots and cornstalks. A. C. Pope. *Binghamton, N. Y.*

Numerous experiments, to test the question whether sugar could profitably be made from beets and corn, stalks, were made in various parts of our country, about twenty years since, and although some good sugar was made from the beet, and tolerable syrup from corn-stalks, the conclusion very generally arrived at was unfavorable. Great hopes are now entertained that the newly introduced Chinese sugar cane will enable us to produce our own sugar. It thus far promises well, if we may rely on the published statements respecting it, and by the close of another season sufficient experiments will probably be made with it to test its value as a sugar-producing plant in this country.



The M'Laughlin Plum.

This variety has proved in Western New-York, of the very highest quality, and among all that are reputed to be equal to the Green Gage in quality, but all of which fall below it, this perhaps comes the nearest. It was stated by Samuel Walker of Boston, (and there is no higher authority among our fruit-growers,) before the American Pomological Society, that the McLaughlin has been less diseased with the black knot than any other variety.

Foster's Lime Brick.

We published in our last volume, (p. 93) a description of a new kind of brick or building material, invented by Mr. Ambrose Foster. A correspondent afterwards inquired through our paper for Mr. Foster's address, and in answer to this inquiry we have received the following note from Mr. F.

75 Nassau Street, New-York, Dec. 16, 1856.

Messrs. Editors—An inquiry from "*E. M. C.*," in a former number of your paper, has just been brought to my notice. As I have not the address of your querist I am compelled to certify to him my whereabouts through you. You have it above.

Permit me to add that the reason why I have not brought my invention more prominently before the public, by advertisement, &c., is that I was desirous to *perfect*, as far as possible, the machinery and *modus operandi* of manufacture, before calling public attention to it. This I think I have now accomplished to a great extent, at least so far as to satisfy me of the ultimate utility of the invention.

Your correspondent's inquiry directed my attention to the article in the Co. Gent., which I had never seen before; though it is evident that its author must have been in possession of very correct information. I shall take the earliest opportunity to send you a specimen block. Ambrose Foster.

Use of Lime on Lime-Stone Soils.

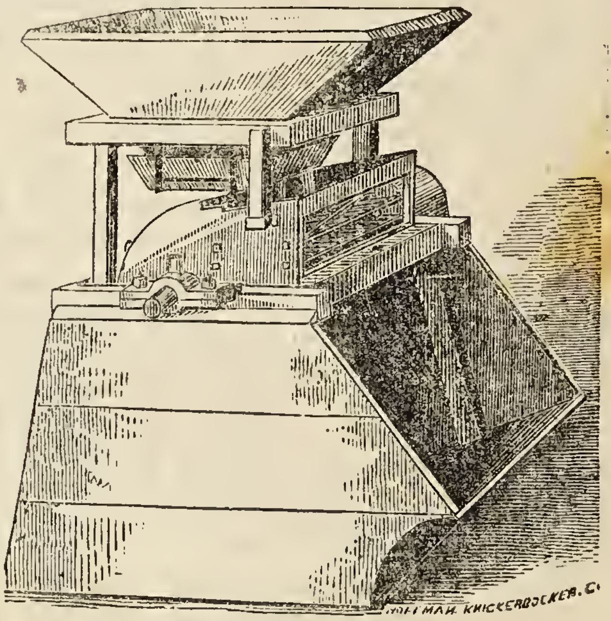
Messrs. Editors—Some twenty years since a distinguished chemist in travelling through Western Massachusetts, on a voyage of investigation, favored us with a call, and among other things remarked that he thought our limestone lands sufficiently charged with lime to answer all agricultural purposes, without treating them to any additional quantity. To ascertain the proportion it held in the soil, a small quantity of the latter, taken from the immediate vicinity of the lime ledges on the east and west, was taken for analysis. After the result was obtained, he gave an opinion confirmatory of the former one, that our lands needed no more lime than nature had provided.

At this time an excavation was in process on the place, that required the removal of many loads dark, loamy earth, so muck-like in its formation that we deemed it a sacrilege to allow it to be wasted. We therefore had it deposited in piles of ten or fifteen loads each, and in these heaps we put perhaps one load of twenty bushels of the refuse lime of the kiln to ten loads of this surface soil. These heaps, which after the addition of the lime, composted themselves, lay over two winters undisturbed, and in the spring after the second winter we prepared a piece of stalk land for spring wheat, on the very ground from which the soil had been taken for analysis. This compost was applied to a part of the land and harrowed in with the wheat. No other manure was given. Grass seed was sown in like quantity over the piece. In the result it needed no landmark to tell on which part and how far this compost was given, neither in the wheat or succeeding grass crop. On the part where there was no compost given, the quantity of grass was uniformly one-third less than where it was spread. Wild wormwood crept into the uncomposted part, and it soon got over the benefit of fresh seeding, while the other portion of the field remained free from all weeds until it was plowed again. Here then we give an example of the benefit of lime on limestone land—the result of which was most clearly marked, for in all other circumstances the condition of the land was equal.

In doing this, however, we do not open a war on science in its application to agriculture. We are firm believers in the fact that farmers should be scientific men, and we fully believe that immense losses result every year for want of knowledge which science will impart. There was doubtless some cause why the result we have noticed was produced, but what the cause was, is beyond our power of explanation.

Science in its application to agriculture is yet in infancy; consequently it is imperfectly understood. General principles may be reached, but new and more minute facts will, in the course of progress develop themselves, and in due time the *why* of the result of our experiment may be seen.

While science is rendering such aid as in its present state, it can for the benefit of the the farmer, he in his turn should make such experiments as circumstances will permit, always being cautious to mark such causes as observation can discriminate, as well as their results, and thus be able to compare practice with theory, and find how far they will unite in his favor, and what causes lead them to a separation in their results. W. Bacon. *Richmond, Mass.*


MAN. KNICKERBOCKER. C.

"The Excelsior Farm Mill."

This is a new and improved Portable Mill for grinding all kinds of feed, including corn in the ear. Many of them have been sold and used during the past year, and have been pronounced the best ever used by the persons using them. They are easily worked by a common two Horse Rail-way Horse Power, and will grind "five or six bushels of grain into fine feed or meal" in an hour easily. They are very durable, and are self-sharpening, and will grind at least 1,000 bushels of grain before new cylinders are required, which can be replaced at a very trifling expense. This mill weighs about 275 pounds and costs about $60 all complete. They are manufactured by Rich'd H. Pease, of this city, at his Excelsior Agricultural Works.

A Colt from a Mule.—Mr. John D. Pitts of San Marcos, Texas, writes the Spirit of the Times as follows:—"I have a mule that I raised, three years old in June last, that now has a colt by her side. Please say what I must call it. Its ears are not like the mule nor the horse. In other respects it resembles the mule. If any one disputes it, I have the mule and her colt in my lot; the doubting Thomases can see for themselves."

Ashes and Bone-Dust.

Editors of Country Gentlemen—I would like to be informed through your columns, the true value (in cents) of leached and unleached ashes, per bushel, for manure for corn. How many bushels should be applied per acre, and how put on the land, and when? I want to know its least value per bushel, as a manure. Also the value of ground bones per bushel, and for what crops and when should the bone-dust be applied, and how? J. Bonner. *Hancock Co., Ga.*

We are sorry that the questions of our correspondent cannot be answered definitely. Both ashes and bone-dust vary greatly in their effects, often from causes which cannot be explained. Sometimes a moderate application will even double a crop—in a different locality, they frequently produce no sensible effect. We greatly need a series of accurate experiments with them in various districts. Their value will of course depend upon the results they will produce; and this must be determined by experiment. Where they have proved most successful, their value has been many times greater than an equal amount of good yard manure.

Leached ashes have lost most of their potash by the operation; but they still contain some, with much lime and other valuable ingredients. In some asheries, the leaching process is carried much closer than in others—often at least a third or a quarter remains behind, and sometimes even more. Fifty bushels of fresh ashes may be taken as a fair average application to an acre, varying, however, greatly with circumstances; and two hundred of leached ashes. A few hundred pounds per acre of bone-dust, if ground fine, are all that are usually applied. We should prefer applying the ashes broadcast for corn, as the roots soon spread and reach it, although more commonly applied with gypsum *in the hill*. Perhaps both ways together would be most efficient; yet as too much ashes on the young plants may injure them, caution is needed in the hill-dressing. Bone-dust is most commonly (and very safely) drilled in with the seed, especially of turnips, to which it is most commonly applied.

On the Use of Mowing Machines.

Messrs. Editors—Can you advise me as to the kind of *mowing machine* best to be obtained for use, on a farm where *fifty acres* is required to be cut *annually*—where such implements can be obtained, and at what price? We have among us several enterprising gentlemen who have used implements for this purpose some, and *talked* about them more, but they are not mechanics, nor do they know *quite well* what they are talking about. I am myself one of these characters, but still I am desirous of better information; and know not where so likely to find it as at the fountain head of *Agricultural Science*, the office of the "Country Gentleman." W *Mass.*

We have seen many mowing machines used, and have employed some of them on our own lands, and find them a most important labor-saving machine—nearly as much so as the plow and horse-rake. On large and tolerably smooth meadows, they will easily cut at the rate of half a dollar per acre; and if the grass is good, and the weather favorable, hay may be cut and raked into winrows with a revolver, for fifty cents a ton. This is the result of our own experience. Our correspondent may easily "figure up" from this data, and decide what to do with his fifty acres of meadow.

Without wishing to disparage any other machines, we have been most successful with *Ketchum's improved* machine, *Allen's*, and *Wood's Improvement of* Manny. The latter we have used most recently, and find it admirably adapted to rough or smooth ground, lodged grass, and other impediments, shearing its way through without clogging, cutting closely, and requiring a very moderate pace in the horses. If they move at an average rate of two miles an hour, (with no detentions) *Wood's* machine will cut precisely an acre an hour, requiring one man and two horses

We believe all are sold by the manufacturers for about $110; our correspondent will find Wood's advertisement in this journal of a few months past.

Management of Cattle Manures.

Cattle Manure is less inclined to a speedy fermentation, as it is while fresh of a more moist character, and generally when left, dries hard, which makes it unsuitable for use without it is frequently turned or composted with horse dung, which latter course is often pursued with advantage. A good practical farmer of twenty years experience, informs us that he always composts all the excrements of his horses, cattle, and swine together, which he thinks by far the most convenient as well as the best method, as the cattle and hog dung are rendered more soluble, and the horse manure is less liable to waste.

The use of cow dung is considered particularly advantageous on light soils, on account of its close and clammy nature, but on clay farms it is considered much less valuable without it is used in connection with other fertilizers; hence the great difference of opinion in regard to this manure; some deeming it very much superior to that of the horse, and others the contrary; it is, perhaps, more lasting in its effects than any of the other animal excrements, excepting that of swine, which is about on a par with it in this respect, but the durability must of course be somewhat governed by the food that the animal consumes.

The dung obtained from milch cows which are yielding a large quantity of milk, is found to be inferior to that from oxen, steers, and dry cows from which no milk is obtained, which proves that a considerable amount of the valuable portions of the manure is carried off in the supply of milk; it is also well known that the excrements from young growing animals are of much poorer quality than from those of matured growth, as a large amount of the valuable portions are used in the increasing formation of bone, flesh and muscle. We are informed on authority, that in some parts of England where the soil is naturally very poor, it has been found good economy to feed cattle on rich substances, such as oil cake, merely to increase the quantity and quality of the manure. This, we are told, is done even when the sale of the animal will not pay for the amount of oil cake consumed, leaving this deficiency to be made up by the increase of manure, which it amply does, so much so that a large moor in Lancashire, which was entirely uncultivated thirty years ago, has, by the practice of this system, become covered with profitable farms. Another fact well known to most practical farmers, but which has often been doubted by mere theorists, is that a ton of any kind of fodder or of grain can be fed out, and the returns in the excrements of the animal will be found to make more and far better manure than the produce before it has passed through the animal. This is well explained in one of the Lectures of Prof. J. F. W. Johnston, which were delivered before the N. Y. State Agricultural Society in 1849:

"Suppose an animal is fed on wheat, which contains a great quantity of starch, gluten, and mineral matter: when the animal undoes what the plant has done, that is, converts the starch into carbonic acid and water, by the action of the lungs, it separates the starch, which in wheat forms more than half of its weight and all the other matter—the mineral matter and the gluten become changed into another form of matter, and what the animal rejects is richer in saline matter and in the material that contains nitrogen, than the food in its original state. It contains double the quantity of nitrogen. This is a very beautiful and interesting fact, showing that by the digestive organs of the animal you can obtain a manure richer than the vegetable and green food, if applied directly to the surface. Another point: the animal grinds down the food into a minute state with its teeth, and it is thus converted into a substance more available to fertilize the soil, than the dry straw or hay which it eats, if applied directly to the soil without mastication."

We have preferred to give the above in the remarks of Prof. J. to rendering the same opinion in our own words; for we look upon him as about the best authority at hand. It happens to strike us that many of our readers may say that in this brief treatise, so far, we have told them the plainest and most practical truths, many of which they have long known: for this we make no apology; we are endeavoring to supply something that is wanted by that large class of farmers who are constantly complaining (with truth) that agricultural papers have nothing *practical* in them that can be made use of on the farm. G. T. H.

Farming on the Prairies.

Messrs. Editors—Thinking some of your numerous readers would be glad to know how farming pays in Illinois, as an investment for capital, I send you some account of the incomes received from the large farms in this vicinity, together with their mode of management, &c. I would premise my account by stating that there is a great difference in the quality of the prairie soil in the various sections of the State. Through much of the northern part the subsoil is sand and gravel, and the soil itself is so impregnated with sand as to make it too loose and light for winter wheat. Through Central Illinois, the soil is mostly a dark loam, on a clay subsoil, which you strike at a depth of from eighteen inches to four feet from the surface. On this soil wheat and clover grow most luxuriously, and it is unequalled by any land I ever saw for enduring drouth.

The country here, as in all the North-west, is divided by the government surveys, into sections of a mile square, containing 640 acres. These sections make favorite-sized farms with men who have the means to improve and carry them on; and the course usually pursued by those who have the *funds*, is to enclose such a farm with a three-board fence, and put on teams enough in May, June and July, to break it all up, and sow to wheat in September. This crop frequently pays for the land, the cost of fencing and of putting in and harvesting the crop; and if well done may be *safely* counted on for from 15 to 25 bushels the acre, and at only 15 bushels to the acre, at $1 per bushel, you have the snug income of $9,600 with which to cover the first year's expenses.

This crop being off the ground, the owner is prepared to commence farming on a scale that would be called pretty extensive in New-York. One of the first things to be done is to provide himself with a large amount of stock, either sheep or young cattle, to eat up the straw and corn fodder raised upon the farm, and he need be limited in the number he buys only by the amount of funds to buy with, as prairie pasture and prairie hay is too abundant here yet for any one to be in danger of being overstocked. This stock is herded on the prairie through the summer season, at no expense to the owner except to keep a herdsman; and in winter on the coarse fodder of the farm, except such as are intended for beef, which are kept entirely on shocked corn, stalks and corn being fed together. Hogs are kept to follow the cattle and gather the waste, so that, although it may seem a wasteful way of feeding, there is not as much lost after all as would pay for the labor of husking, grinding, &c.

The crops on such a farm the second season, are usually perhaps 160 acres of corn, two or three hundred acres of spring and winter wheat, and the balance in barley, oats, potatoes, &c. As much land as is required for meadow and pasture, is seeded down on this crop, and the rest is cultivated year after year, "ad infinitum," for they pay but little attention to the rotation of crops here yet. There are fields in my neighborhood, that have had corn on them 21 years in succession, and the crop is better on them this year than on new land. The corn crop averages from 50 to 75 bushels per acre, being plowed through three times and never touched with a hoe, and is mostly fed up on the place, as it pays much better than to sell at ordinary prices.

The land is so easily worked that six men can perform the labor of such a farm through the summer season, except in harvest, threshing, &c.

Now for the amount of sales from such a farm as this, and you can judge whether Illinois farming pays. A good farmer when once a-going, would sell (I make my estimates from what they are doing all about me,)

One hundred head of beef cattle, say at $36, ...	$3,600
One hundred and fifty fat hogs at $10, ...	1,500
Five thousand bushels of wheat at $1 per bushel, ...	5,000
One thousand do. barley at $1 " ...	1,000
	$11,100

This is a low estimate of what can be done every year on that amount of land. It is no more than any man can do who comes to this country with an ordinary amount of energy and a capital of $10,000, provided he buys his land partially on credit, for lands both wild and cultivated, have advanced so rapidly in price of late, as to require some money to buy them. Wild lands within twenty miles of Bloomington, are selling for from $12 to $20 per acre, and improved farms from $25 to $50 and $60, according to location, buildings, &c., and are not very dear at that, as they are worth at least as much for farming purposes as any Eastern land that sells from $70 to $100 per acre. It is not to be wondered at, as such facts as these become known, that Eastern farmers who have their means invested in land on which they have to be industrious and saving to make it pay the interest, should sell as soon as possible and try their fortunes at the West. There are no better customers than here for blooded stock and all the improvements in farm machinery, and with the capital to develop the resources by which they are surrounded, there is nothing to prevent the Illinois farmers from taking the first rank among the agriculturists of the country. S. W. Sutherland. *Near Bloomington, Dec.* 4, 1856.

Underdraining with Stone.

Eds. Country Gent.—As information has been solicited in relation to underdraining with stone, I will give some practical results in relation thereto.

In 1836, I commenced reading your own Genesee Farmer; and from that was induced to commence the work of blind draining.

In 1839 or '40, I had some 200 rods laid down, two feet deep, and filled by throwing in cobble stone, promiscuously. They worked tolerably well for a few years, but have failed, and are of but little use at present. Other ditches have taken their place.

I have since, at different times, laid from eight to nine hundred rods in the following manner:—The larger drains 2½ feet deep and 1½ wide—the branches 2 feet deep and 14 inches wide, and square at the bottom.

They are filled by placing cobble or other stone broken with a hammer at each side of the ditch, in a manner so that they cannot be shoved inward by the pressure of the stone above.

Cover the large drain with flat stone, that are not more than six to ten inches wide; if they are wider, they must be broken and placed on so as to press on all the side stone, to keep them in their place. If the capstone do not reach across the ditch, place stone at the ends, to prevent shoving either way. The capstone for the small ditches, may be the cobble or any other stone, not too wide or thick. The throat of the ditches to be in the larger, six, and in the smaller, three to four inches square. Fill up with any kind of small stone, carefully covering all the cracks, and level, leaving one foot of earth above. Put on a little straw or inverted sods; plow in the dirt with a team, and the work is done.

My ditches, built as above some twelve to fourteen years ago, continue to work well, where there is sufficient fall, and where they have not been obstructed by muskrats and other vermin.

The cost, for digging and stoning, in this locality, is from eighteen to twenty-five cents. R. J. B. *Clifton Spa, N. Y.*

Culture of the Cranberry.

Answer to Inquiry of Wm. Marks.—1st. Your land is right, and you may prepare it for cranberry vines two ways—1st. remove all the surface sod this fall and winter, and set your vines in the spring. It is important to have the muck frozen to prevent its drying, cracking and rolling up in the hot weather, which would kill the vines the first season if not frozen.

Second way. Cover the surface with sand, say 2 or 3 inches deep, after having removed the bogs; then set your vines in the spring from April until June. The sand helps to keep the weeds down, and adds to the bearing qualities of the vines by slightly dwarfing them.

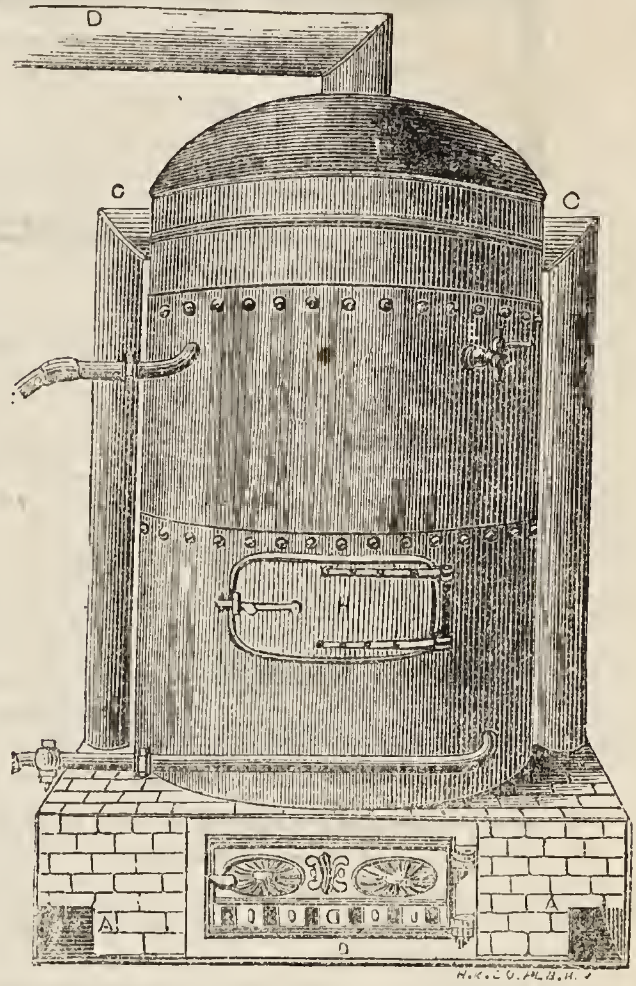
There is as much difference in vines as there is in apple trees, some loading heavily with large berries, while others bear none at all. I answer from six years' close observation, coupled with experiments, and say that barren vines will not bear fruit if cultivated ever so well. Different kinds of vines should not be mixed when set, as the time of ripening varies in the twenty kinds I have got, from one to two weeks.

They will, if well set, give two quarts of berries to the square rod, the first year.

Set in hills, 3 plants to a hill, 20 inches each way, or nearer if you have vines plenty. I draw a line and punch the holes for the vines with a stake fitted for the purpose, into which I put the vines, and cover two-thirds with earth. After you have clean vines of your own, you can set in hills by cutting sods of cranberry vines, and placing them where wanted; but wild vines, if set in this way, can never be separated from foul weeds which usually accompany the roots of the cranberry sods.

I think the Bell variety safest to commence with; the Cherry requires durable water all the year. Favorite is the most prolific bearer which I have in cultivation; it mats quick, with large excellent flavored berries; never rots with me, but is rather dwarfish, not growing over 5 or 6 inches high, while the Bell variety reaches 10 to 12 inches in height. The cranberry plants are hardy, and grow readily from slips or cuttings without roots, and any one choosing to cultivate them will find it a pleasant and profitable branch of farming.

I drew the two first prizes of $3 each at the Cayuga County Annual Fair, for the best cultivated cranberries. Daniel L. Halsey. *Victory, N. Y.*



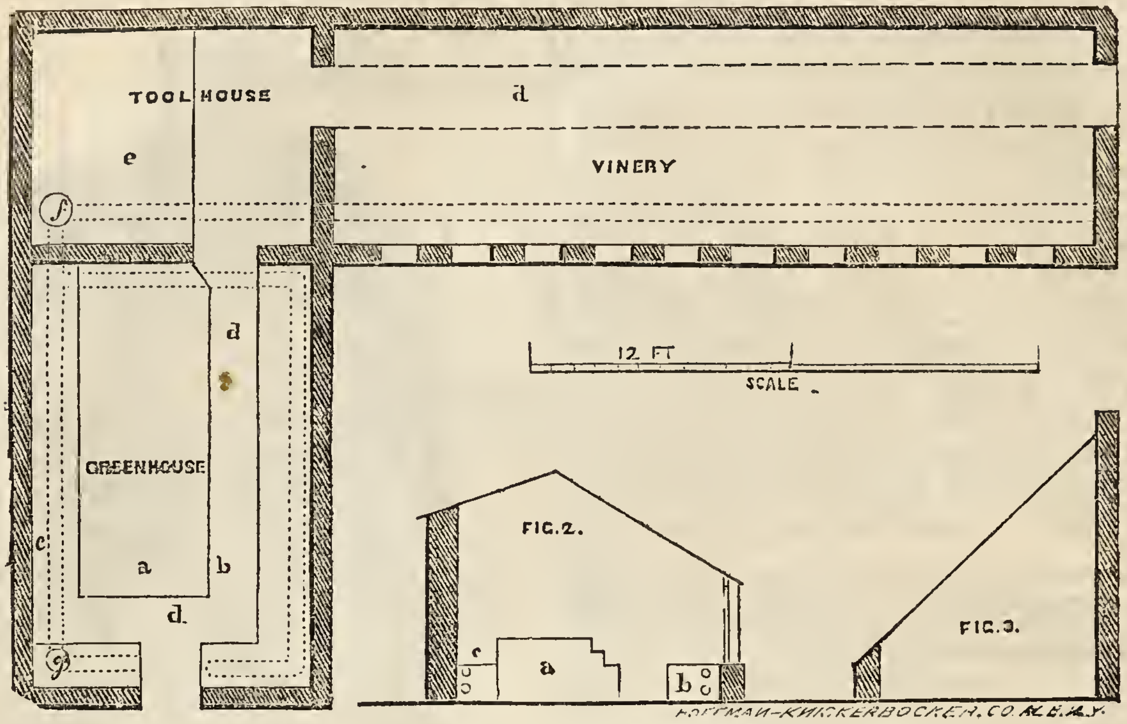
Savage's Boiler for Warming Houses, &c.

The above cut represents a Boiler recently invented by S. T. Savage of this city, and adapted for mechanical purposes of any kind, for heating buildings, greenhouses, &c., and for use wherever hot water is desired in large quantities. The principle on which its presumed superiority depends, is that of causing a perfect combustion of fuel and gases, by so introducing the atmosphere to the action of the flame, that its oxygen shall combine with the large amount of combustible products that would otherwise pass off from the coal unconsumed, and by effecting the entire burning of the whole, save a very considerable percentage and require less feeding and attention than boilers of other kinds.

Remedy for the Bark Louse.

Messrs. Tucker—Your Nova-Scotia correspondent will find a certain remedy for the bark louse, in using the common sal. soda, which may be had at any druggists for about three cents per lb. Dissolve it in water, allowing one lb. of the sal. soda to each gallon of water. When well dissolved, apply it with an old white-wash brush to the limbs and trunk of the tree. It destroys all insects which harbor under the loose bark, and effectually kills the bark louse. I use it in spring and autumn when the trees are not in leaf, and its effects are astonishing in giving a new vitality to the tree.

Can any of your readers in return, tell me anything of the effect produced by applying old iron to the roots of fruit trees, and whether it must be placed in contact with the root? T. A Craven. *Franklin, N. J.*



MR. DEWITT'S GREEN-HOUSE.

Green-House and Vinery.

In the above engraving, we give a plan and sections of a Green-House and Vinery, recently erected by W. H. Dewitt, Esq., of this city, designed by our correspondent, Mr. Sanders, to whom we are indebted for the following description of it:

The houses are on a small scale, but compact and nicely adapted to grounds similar to those they occupy, and the requirements of city residents whose tastes lead them to look to this as a means of recreation after business. The ground on the back of both houses is in other hands, there being a jog of 33 feet commencing with the outer end of green-house.

The dwelling in this instance is westward, overlooking the back wall of the green-house, which is softened by its being low and the short roof of glass sparkling in the sun. The green-house has nearly or quite a due east aspect, which, with the three-quarter span roof and glass end facing south, answers well enough, while the vinery has an admirable aspect, (south) with a very warm border, made with the utmost care in every respect.

In front of the green-house, and to the dwelling-house westward, continuing to a line with the end of vinery, is the flower garden and grass plot. Below the vinery a small kitchen garden, in which is a neat little peach and fig house, somewhat smaller than the vinery, nearly completed.

The engraver has placed the tank in the corner, it should have been close to the door. In the vinery also, the height of back wall should be 13½ feet instead of 12 as shown—otherwise the scale will give the dimensions.

Explanation.—*a.* Back staging, made of open wood work, and painted invisible green.—*b.* Front stage, with close boards, covered with sand, having a small space left next the front wall, for the heated air from the hot water pipes to pass directly up to cut off cold from outside.—*c.* is a slat walk two feet above the floor line, the same in height, for convenience of watering and examining plants. This walk obstructs no room, as the back plants are generally tall enough to project over it, and be sufficiently out of the way of the head. *d.d.* are walks also of slats, laid on a brick floor, the former recommended from their being drier and pleasanter to walk on in winter. *e.* is an excavation in tool-house, five feet deep, to receive the boiler, *f.*, and to hold coal sufficient for a supply through winter; it is floored over with boards; this room has a tin roof.—*g.* is a tank for feeding the boiler with water, and to allow for expansion. The apparatus is one of Hitching's, of New-York, and works admirably, and will consume but little coal. There are stop-cocks to shut off the water from either house. Edgar Sanders.

Alum in Candle-Making.

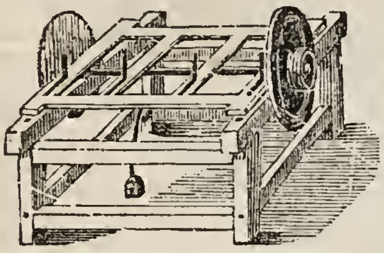
Messrs. Eds.—In your last number you inquire for information as to the process of hardening soft tallow by the use of alum. We have taken interest to inquire of one who has long practice in the operation, and learn as follows: The proportion used is about one pound of alum to eighteen of tallow. If the tallow is very hard, a less quantity is used; if soft tallow, the quantity of alum may be greater. The mode of operation is, to put the alum in water which is raised to boiling heat, by doing which the alum is thoroughly dissolved. In dipping the candles, this water in a boiling state is added to the tallow as the quantity is diminished by the growth of the candle. This fairly mixes the alum with the tallow, while the water settles in the vessel under the tallow. We have seen very fine candles made from old lard with a portion of tallow by this operation.

We have spoken, as is seen, of the manufacture of dipped candles. The water could not well be used in making mould candles, but the proportion of alum and tallow would probably be about the same as in the former case, and the mixture can be effected, for aught we can see, by putting the alum into the tallow when cold, and dissolving them together. W. B. *Richmond, Mass.*

A Practical Compliment.—Our readers will remember our quoting a week or two ago, a very complimentary note from a correspondent at Whitehall. We must now acknowledge our indebtedness to him for a list of nearly *Fifty New Subscribers* to the Co. Gent., all at that post-office—for which as well as for his good opinion, we are very much obliged. This is a *practical* way of expressing approval, which can but commend itself to the imitation of every reader.

Sawing Wood by Horse Power.

Messrs. Editors—Please inform me what machine is best adapted for sawing up wood at the door for fuel —where it can be obtained, and at what price. S. B. S. *New Paltz.*



The annexed engraving exhibits a circular saw-mill generally in use for cutting wood for railroads, farms, &c, and found of great service in splitting fencing, for carpenter's uses, &c., &c. They are equally well adapted for one or two horses, and are capable of cutting twice through, with two horses and four men, from 20 to 30 cords of hard four feet wood per day, or half that amount with three men and one horse, requiring no change of team. The saw is generally used from 24 to 26 inches diameter. They can be procured at the different Agricultural warehouses in this city. The one represented above is made by Emery Brothers—price $37.

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The Best Cattle for Slaughtering.

The rearing of cattle for the beef-market will certainly call into requisition a larger amount of scientific and experimental knowledge, when the consumers and venders of beef shall have made the discovery, more generally than at present, that the beef of certain breeds, and still more, of certain modes of feeding, is greatly superior to that otherwise produced. When a proper distinction of this shall be more generally made, there will be a call for superiorly fed animals, which will attract more attention and greater numbers to that department of agricultural skill and labor.

To those who are at present engaged in the raising of cattle for the market, or in the production of the best quality of beef, it may be both interesting and instructive to be informed as to the principles and practices of those who have been the longest employed in this department of business, and who have brought to its pursuit all the resources or helps to be found in physiology, chemistry, the analysis of food, &c., together with the facts accumulated during a long experience. That the business of rearing and feeding of animals for the production of beef and other kinds of meat has been pursued during a longer series of years, and has received much more attention in Great Britain, than it has, as yet, in this country, will be at once acknowledged and admitted. From the best experience of those in *that* country, who are the most successful in this department of business, there are few in *this* country, we presume, but might gather many useful hints and items of information. We have, accordingly, been induced to select a few such hints and items from recently published essays and discussions, giving the results of the experience of those who have been most skillful and most successful, in the business referred to, on the other side of the Atlantic.

To obtain stock best fitted for feeding, or for the laying on of fat and flesh and early maturity, breeding by crossing distinct or allied breeds is much resorted to among British feeders. It is a fact, pretty generally known we presume, that a vigorous progeny is usually obtained as the result of a cross of two distinct breeds. This fact or law is the foundation and explanation of the practice just named. Another result of the crossing of breeds is, that the offspring are generally precocious, with a tendency to an increase of size. To secure this result with the greatest degree of certainty, and to the utmost extent, it is the usual practice to select a male having the peculiar properties of early maturity, and the disposition to accumulate flesh and fat rapidly. Size is also a quality which is regarded; but ought to be, always, deemed of less importance than a hereditary tendency to obesity, precocity, and superior quality of flesh. As the Shorthorns possess these qualities in an eminent degree, this breed is almost invariably resorted to for a male for crossing females of other breeds. Where the rearing of cattle is followed mainly with the view of obtaining stock for the production of beef, the practice in many districts is to use a pure bred male of the Short-horn breed, with a female of the breed peculiar to or prevalent in the particular district. This system of crossing is gradually extending over the whole of Great Britain and Ireland. This class of cattle is rapidly extending in most of the northern counties of England, where the breeding of cattle is practiced to any great extent. The dairies in London, also, are mostly supplied with cows so bred.

In both of these respects we might follow the practice of our British brethren, with good prospect of similar results. For here, as there, the Short-horn breed is peculiarly characterised by a tendency to early maturity and to a great accumulation of fat. This breed is also possessed of valuable qualities as dairy stock, though their lactative capacities have not been cultivated so much as their capacity for laying on fat and flesh

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Winter Pruning.

Messrs. Editors—Will trimming fruit trees during the winter time, injure them in any way? I have a large orchard which I want to trim this winter. Would the place where the limb was sawed off dry up and rot, or heal over in the spring? Which is the best time to trim? E. Dennison. *Forestville, N. Y.*

Trimming orchards in winter has been long practiced by some good orchadists with success. The sap not moving at this time, the wood when cut becomes dry at the surface in a short time, ready to receive a coat of protecting cement. This coat may be applied soon after cutting, or the following spring A hot mixture of tar and brick dust, or tar and pounded dry clay, answers a good purpose; but a thick solution of shellac in alcohol is more neatly applied and is generally preferred, although more expensive. Some good orchardists prefer midsummer to winter, and it is probably the best time, all things considered.

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The Concord Grape.

Messrs. Editors—I saw in the Country Gentleman a notice of the Concord and Isabella grapes, in regard to their time of ripening. As there appears to be so much difference in different localities, I thought I would give you the result of mine. I have endeavored to give them a fair trial. My Concord and Isabella are standing 10 feet apart; they have the same cultivation and exposure. The Isabella is six years old and the Concord four. They both gave good crops the past season. The Concord gave fourteen pounds, and was ten days earlier than the Isabella. Some of the bunches were nearly equal to the outlines in the Country Gentleman. The Concord promises well, being perfectly hardy and a good bearer. It will without doubt be the grape to cultivate as far north as Oswego. S. Worden. *Minetto, Oswego Co.*

How to Grow Good Potatoes.

Messrs. Editors—Much has been written and published for a number of years past, on the subject of the "potato rot;" and also the different modes of cultivating, the different articles applied to, and the general treatment of the crop, for the purpose of preventing the recurrence of the disease, and to obtain sound and healthy potatoes. After experimenting a number of years with the crop, I have come to tho conclusion that *fermentation* in the soil, whether caused by the decomposition of vegetable matter, or by the application of unfermented manures to the land, has a tendency to make the potato rot; consequently as a general rule, I have discarded the use of green manures for that crop, and directed my efforts to raising the best quality, rather than the greatest quanity of potatoes.

The method of cultivating the potato crop which I have adopted, and which, with slight variations, has been extensively and successfully practiced by the farmers in this vicinity, is this:

In the spring I select a piece of sward ground suitable for tillage, and plow at least six inches deep, being careful to lay the furrows as flat as possible; then sow the land with oats or buckwheat. I consider buckwheat the best crop, as by shading the land it more effectually prevents the growth of grass and weeds, and the sward becomes thoroughly decomposed, which is quite an object in the cultivation of the succeeding crop. In the fall after the crop is harvested, about 40 loads (30 bush. to the load) to the acre of well rotted manure, is spread on the land and plowed in. The manure is principally made by composting muck with tho manure made by the farm stock.

The next spring the land is plowed again, thoroughly harrowed, and then marked out with a horse and light plow; the rows running north and south; the rows three feet apart, and the hills eighteen inches in the rows. The seed is dropped, one potato in a place, and covered with a hoe by hand—the crop is generally hoed twice. The time of planting varies from the first of May to the first of June, depending on the forwardness of the season, and the condition of the land for working.

By this manner of treating the land, it will be readily seen that fermentation, caused by the decay of vegetable matter in the soil, has nearly or quite ceased, the turf has become thoroughly rotted and pulverized, and the manure is well incorporated with the soil, and in a condition to be at once appropriated to the immediate wants of the potato crop.

Another item of considerable importance to the farmer in this part of the country, is this: If the manure is drawn and spread, and the land plowed in the fall, it saves so much time in the spring when work of all kinds drives hard, and many times it is impossible to get in the different crops in suitable season. Again, in the fall the land is generally dry, and carting or travelling over it does not injure it for the next year's crop—but in the spring, the land if not wet, is comparatively soft, and repeatedly going over it will cut and parch it up, or pack it down, which in either case materially injures the land for the season.

The crops of potatoes which I have raised by the mode of cultivation described, have yielded from 150 to 350 bushels per acre, and with the exception of two years, the loss by the rot has not been over two bushels in a hundred in a year.

The soil in this vicinity is similar to a large part of the land laying on the eastern slope of the Green mountains in this latitude, which every one acquainted with knows to be a cold, wet and shallow soil, underlaid with a subsoil of *rock* generally, but in other places with gravel and hardpan—the composition of the soil will be easily understood by the timber growing on it, which is composed of maple, birch, beech, spruce, hemlock and fir, and also the rock found on and in it, which is principally granite with occasional tracts of lime rock—the water in the streams and wells being soft, except where the lime rock predominates.

I have been thus particular in describing the nature of the soil, for tho reason that in raising any crop, different soils require a different mode of treatment, and the same kind of soils in different localities would produce as well and perhaps better under some other method of cultivation.

I think that it must be plainly seen by every observing Agriculturist, that the nature and composition of soils which have been cultivated, have changed in a measure from what they were years since,—and consequently other methods of cultivation must be adopted than those formerly used, in order to obtain good crops and make farming a remunerating business.

It seems to me to be incumbent on those who are engaged in tilling the soil, not only to endeavor by careful experiments, to ascertain the best methods by which this want can be supplied, but through the medium of the Agricultural press, diffuse that information among those engaged in raising food for the wants of mankind. C. T. Alvord. *Wilmington, Vt.*

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Protecting Dried Fruits.

An inquiry was made in the Cultivator, by W. C. Healy, how to keep dried fruits for summer use. A number of modes have been published, by different correspondents, to protect them from worms. Some of these I have but little faith in; for instance, the idea of steaming dried fruit over boiling water, and then putting it immediately into bags without drying; the effect of this, I should think, would be to mould and spoil the fruit. The washing of the fruit as suggested by another correspondent, I think a useless labor. It is trouble enough to dry them once. A Farmer's Wife recommends the scalding of them in a hot oven; if she means baking them, I think her plan the best of any suggested. If fruit is put into good linen or cotton bags, and tied up tightly immediately after drying, and baked a couple of times during the season, by putting the bags on a board in the oven moderately warm, keeping them in a dark closet in the meantime, the worms will not disturb them. Another excellent way to protect them from worms, is to procure empty liquor barrels and pack them in, after drying in the fall, and cover them up tight, or put them in other barrels, and add a little whiskey or brandy as you fill them up. J. W. L. *Kingwood, N. J.*

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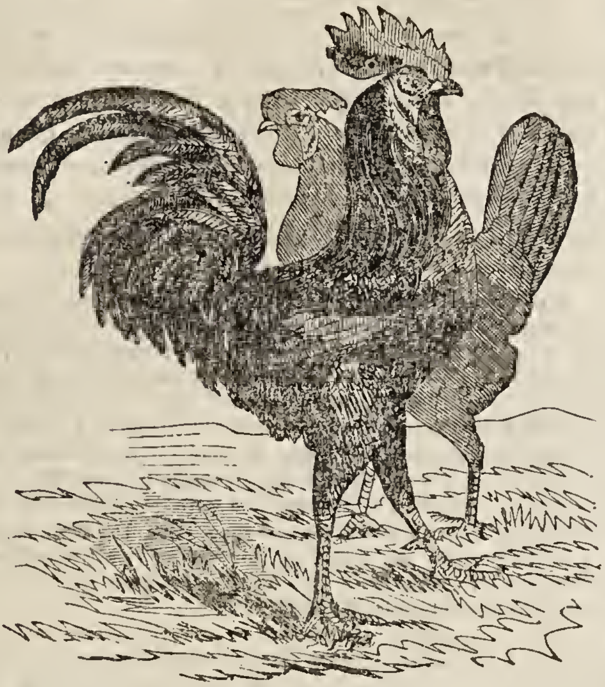
Principles of Chemistry; Embracing the most recent Discoveries in the Science, and the Outlines of its Application to Agriculture and the Arts. Illustrated by numerous Experiments, newly adapted to the simplest Apparatus. By John A. Porter, M. D., Prof. of Agricultural and Organic Chemistry in Yale College.

This work, intended as a text book for the young student, possesses the advantage of being written in a clear and concise style, freed from the use of all unnecessary technicalities and symbols. It is thus made interesting to the general reader unacquainted with the subject, as well as less difficult and tedious to the scholar. But the main feature with which we are here concerned is its treatment of the application of this Science to Agriculture, to which an excellent introduction is given in ten or a dozen pages, marked by very correct views of the connection and reasonable anticipations of its results. The chapter on Animal Chemistry deserves equal commendation. While teachers may profitably examine this work with a view to its introduction as a text book, every young farmer who has not already "studied up" on chemistry, would be benefitted by its careful perusal.



The Spanish Fowl.

It is not now known from what progenitors the Spanish fowl has descended. But the countries bordering on the Mediterranean, with its numerous islands, abound with domestic fowls that bear so close a resemblance to the Spanish, that they unquestionably descended from the same original stock.

The name Spanish is evidently a *misnomer*, for the bird so named is not an aboriginal of Spain, as the name would seem to imply; but it was probably early imported into that country from the eastern borders of the Mediterranean, and soon becoming naturalised in Spain, it was carried from there into other European countries. Spain has few, if any, first rate specimens at the present time, as the race has degenerated by crossing with the original domestic fowl of the country, of a gray color, called the *Manx*.

The English have formerly obtained many excellent Spanish birds from Holland, where fanciers had long bred them with the greatest care; but there also, this bird has been extensively crossed with an earlier domestic fowl, of a dun or bluish-slate color.

The Spanish has been long and successfully naturalized in Great Britain; but even there in that stereotyped country, they have been extensively crossed with other birds, and for some of these hybrids English authors inform us, names have been applied as though they were distinct varieties.

"The true Black Spanish," says Doyle, "is a most strikingly original and very beautiful bird; one of the few which, without the slightest hesitation, we can affirm to be a really distinct class of domestic fowl." And such is the testimony of all modern authors.

There are but few true Spanish birds in the United States, though there are many *black* birds that pass by that name. One reason for the scarcity of thorough-bred Spanish in this country, arises from the high price such birds command in England, as from $50 to $100 per pair is no uncommon price for first class birds. In that country this bird has long been a favorite; and by way of pre-eminence it is there called "the gentleman's fowl—or the aristocrat of the poultry-yard."

The distinctive characteristics of the Spanish are as follows: "plumage of a glossy black, with brilliant reflected tints of green and purple; an erect serrated single comb; with a clear milk-white face and ear-lobes; dark thin legs, and a lofty carriage."

The beak of the cock is long and slightly curved; head ordinary size; eyes bright and rather full; comb extends nearly to the nostrils, is erect or nearly so, and is always of a bright scarlet in health, except during moulting, when it shrinks a considerable in size and becomes a little darker; the wattles are very long, thin and pendulous; *the entire face should be perfectly white* from the ear-lobe to the beak, and from the comb to the wattle; the neck long, the neck-hackle full and glossy; chest rather broad; wings medium length, the coverts being richly shaded with bluish or slightly purplish black; thighs neat and of medium length; shanks clean, rather long, of a dark blue or leaden color; soles of the feet of a dingy flesh color; tail quite erect, true on the body and well plumed, its color iridescent black, reflecting a greenish metalic shade in the sun. Weight from six to seven pounds.

The hen is thus described: "Head and beak neat, of moderate size, beak colored as in the male; eyes bright; comb single, very large and pendulous; face entirely white, the white extending around the eye; neck of moderate length, neatly set on; body broad; wings of medium size; legs blue; tail long, standing high and well squared; plumage colored as in the male, but less brilliant." Weight about five and a half pounds.

The whiteness of the face and ear-lobe increases with age in both sexes. The ear-lobe should be white at a few months, but the face increases in whiteness until two or three years old; indeed, a good bird frequently shows but little white beyond the ear-lobe until about a year old. Such birds as finally have a pure white face, generally show a face of bluish hue after about five or six months, until such times as it fades out and becomes entirely white. Bright scarlet faces should always be avoided for breeding.

The Spanish hens lay larger eggs than any other fowl, the eggs of old hens weighing from two and a half to three and three-fourths ounces, and are perfectly white. They so seldom become broody that they are often said never to sit; but though they are such bad sitters, if once they perform this office, they make good mothers. They will lay a greater weight of eggs in a year than any other breed. They have frequently been known to lay ten months in a year, laying more than forty pounds of eggs in a single twelve-month.

John Baily, of Mount street, London, says, and we have no better authority:

> "They are good fowls to keep in towns; they bear confinement well, and will thrive in a mews or back yard, where others would pine and become diseased; they remain in perfect beauty, as their color does not quarrel with a smoky atmosphere; and as new laid eggs are valuable in such localities, their free laying, and the size of the egg make them desirable."

The Spanish are excellent table fowls, their flesh being fine-grained, very white, juicy, and tender. To our taste we know of no fowl that equals the Spanish, though perhaps for farmer's use the Dorking is preferable. These birds require very careful protection in winter, to protect their large combs and wattles from the severe cold of our northern climate. By some they have been dubbed or trimmed the same as the game fowl; this is no injury, but it detracts much from their beauty; for the thorough-bred Spanish, with their trim, sprightly, and showy forms, bright scarlet comb and wattles, full white face, and their uniform iridescent black plumage, is one of the handsomest and most showy birds, as well as the most useful, with which we are acquainted. Our cut (given last week) is a good likeness of the form and attitude of these birds.

The Spanish has only one true sub-variety, which is the White. White birds have been occasionally thrown from the black; but their young were black again; while a few white birds have been known that bred their like. They differ from their colored relatives only in the color of their plumage. But possessing no contrast of colors, except the red comb and wattles, the whites have few admirers, and are but rarely bred, even in England, and we know of no good ones in this country.

It is a singular phenomenon in the history of the blacks, that occasionally in moulting, they change more or less of their feathers to a pure white. Mr. John Baily, of London, before referred to, says he has had them "turn quite white." A few years since we had a hen thus change nearly half of her feathers at her first full moult, giving her a splashed or mottled appearance.

The best age for breeding stock of the Spanish, is from two to three years; and too much care cannot be shown in its selection.

Only fresh eggs should be selected for setting; and the first dozen laid by a pullet should not be used for such a purpose; for, with the Spanish, as with all domestic birds, chickens hatched from such eggs are apt to be feeble, requiring more care to raise them than they will ever be worth.

The chicks should not come off before about the first of April in southern Virginia, and the first of May in New-York; but if earlier birds are desired, put no more than eight or nine eggs under the hen. As the Spanish, for all practical purposes, is a "non-incubator," it will be necessary to provide other hens to perform this office, but never select a Shanghai for it, as these are too heavy.

The young chickens should be fed quite often and regularly, for two or three weeks, giving but a little at a time, and that always fresh. Give stimulating food occasionally, such as a little cooked fresh meat, bread soaked in beer or sweet milk; or a few onions chopped quite fine. A little cracked hemp seed is excellent food for chickens when quite small; when older give wheat or cracked corn, but avoid fine corn meal wetted with water, as such feed soon sours, when it is very injurious to all young chicks.

In our next we shall speak of birds allied to the Spanish, such as the Minorca, the Ancona, the Andalusian, and the Leghorn.

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Steam Plow in Operation.

Mr. W. Smith, of Woolston, England, under date of Nov. 13, thus writes to the Editor of the Mark Lane Express:

Sir—I have since harvest plowed by steam the whole of my farm, except a bit of wheat stubble left to try an experiment upon in the spring, and a bit of clover-ley plowed with horses. It may be interesting to some of your readers to know the result. I find that the implements exhibited by me at Chelmsford are perfect; that an ordinary seven-horse engine is sufficiently powerful for every useful purpose; that any cold clay, hilly or uneven field may be plowed: that in plowing my bean and pea stubble at a depth of six inches, I did an acre in one hour and thirteen minutes, and an average of five acres per day, including the time for shifting from field to field, at an average cost of 5s. 2d. per acre, including men, coal, water, and horses for shifting; and that in plowing my wheat stubble, at a depth of eight inches on the heavy and ten inches on the light land, I did an acre in two hours, and an average of three acres per day, including time for shifting as above, at an average cost of 8s. 8d. per acre, including men, coal, water, &c., as above; to this must be added interest of money and wear and tear, say 1s. 6d. per acre, which will be the outside, the tackle coming in nearly as good as it went out. As to the value of the work, I give it to you in the words of practical farmers who visited me: "On the wheat stubbles the common plow is of no use against yours; on heavy land the spade cannot equal yours; on bean stubbles one plowing with yours is worth more than two with the common plow."

Mr. Quinby's Mode of Bee-Keeping.

Among those who have had most experience in the care and management of Bees, and perhaps the only one who has entered upon it as a business, and conducted it successfully on a large scale, is Mr. M. Quinby of St. Johnsville, Montgomery Co. We have therefore been at some pains to ascertain his modes of operation, and trust they will prove as interesting as they must be instructive to every careful reader.

He commenced with his first stock of bees in the spring of 1828, and kept them many years with ordinary success, being wholly ignorant on many important points of their nature. What success he had during this period, is attributed entirely to "luck," but becoming satisfied that *luck* consisted more in a correct system of management than mere chance, he commenced a series of observations and experiments to ascertain the causes of failure; this, together with an endeavor to manage them in strict accordance with their nature, has resulted in his keeping his apiary well supplied with bees for twenty-eight years, and he has now on hand several hundred stocks.

For the purpose of obtaining a superior article of honey for market, he left Greene for Montgomery Co., some four years since. In the former place, most of the surplus honey was obtained from buckwheat, which is dark, and only second-rate as to quality. Montgomery county furnishes a much better article, from the greater amount of white clover in the pasture land used for dairying purposes, where it is kept fresh, and flowers in succession for a long period.

It is his policy not to make his bees travel too far in search of stores; consequently he endeavors to keep no more in one locality than can find abundance within a circle of one or two miles. The number of stocks in one place in the spring, is from sixty to eighty. A suitable place of a few square rods is selected; one out of the wind and where there are no tall trees for the swarms to cluster on, out of reach. Clustering bushes are put up where they are needed, as it is important to have the swarms light so as to be hived expeditiously, otherwise several are liable to unite.

When the swarming season arrives, one man makes it his business to be on hand through the middle of each fair day, and hive the swarms as fast as they issue. By convenience and practice the first swarms are generally kept separate. Of the after swarms (second and third,) two or more are united, at least enough bees are put into a hive to make the number equal to a good first swarm. This is an additional security against the moth—all, or nearly all are strong swarms. When a third swarm issues and clusters by itself, it is generally returned to the parent stock, after taking away the queen or queens, as the case may be. But as several of these small swarms frequently issue at one time and mingle together, it is not always practicable. It is quite common to have twelve or fifteen in a day.

The stocks are located in their summer quarters as soon as practicable in the spring, before they begin work. Each apiary is visited once or twice a week through the spring, to destroy what worms can be found, and to ascertain the actual condition of each stock. When any one fails to increase its numbers equal to its neighbors, it is noted and receives particular attention, searching for the cause and applying the remedy. In this way no colony is allowed to be reduced till the worms destroy it. The destruction of stocks by the moth he considers in effect only secondary, that is, nine-tenths of them would be lost eventually without the moth, because they seldom step in, in numbers fatal to the colony, unless the bees are first reduced and cannot repel them, and all the assistance man can give will avail but little. The secret of successfully combatting this enemy is in understanding how to keep strong stocks. Here he seems to have the advantage over those bee-keepers who mistake secondary for primary causes.

During this period he has never found to his satisfaction, a patent hive so well adapted to the wants of the bee as the simple old box, unless Mr. LANGSTROTH's should prove to be one. Having recently become somewhat acquainted with its principles, he intends to give it a thorough trial next season. The common hive is the one he uses; the size is 2,000 cubic inches inside measure. Glass boxes are set on the top for surplus honey. These boxes are usually six inches square, five in height—top and bottom wood, sides glass. In the bottom are holes to match others in the top of the hive. Four are set on at once. A large wood box, seven inches deep and thirteen square inside, covers them. They are put on old stocks as soon as any bees are crowded outside; on young swarms when nearly full, unless very near the end of the honey season. The wood covers can be raised at any time, and the boxes being glass, the precise time of being filled can be ascertained. All full ones are immediately removed, and empty ones put in their places. In this way the purest white combs are obtained. The person taking care of the swarms finds time to attend to the boxes.

As a beginning, and to encourage the bees, small pieces of new white comb are attached to the top, by dipping one end in melted bees-wax and applying it warm. This is done before nailing together. By strict care to change the boxes as fast as filled, he has obtained the present summer from three swarms hived after the 18th June, surplus honey amounting when sold, to over forty-five dollars, besides ample stores for winter. But this is above the average.

No bee house or other permanent fixtures are used. The bee house is objected to on account of preventing a free circulation of air, also when the roof and floor are once erected, there is a constant disposition to crowd the stocks too close—beside all this, there is not one advantage to balance the expense of erection. Another arrangement, more simple and convenient is preferred, and where there is room, no particular inducement to crowd the stocks too close. An inch board two feet long and but little wider than the hive, is raised by nailing it to blocks of wood two or three inches from the ground, and supports one hive. It requires a little extra trouble to keep grass and weeds away, but as a compensation many bees are saved, that would be lost when standing higher. A separate roof covers each as a protection from rain and the hot sun. Everything about the apiary not absolutely necessary for the thrift of the bees is avoided, and profit made the leading feature. Stands, hives, covers and roofs, are all left rough, with the exception of a few as specimens, which are ornamented. Yet these produce no more surplus honey, nor send out any more swarms, in consequence of living in a fine house. If there is any difference it is in favor of those of ordinary make.

In his shop, through the side of which the bees work, he has one that he calls the perfect observatory hive, where he takes his lessons in their natural history. It is some five feet high by two and a half feet wide, containing only one comb. Each side is covered with glass, and doors hung on hinges cover these, that they may be opened at any time, and all the operations of the interior studied at leisure. It being inside the building the most timid are perfectly safe from any annoyance from the bees. The workers may be seen discharging their loads of pollen, others soldering the cracks and corners with propolis, nursing the young, constructing combs, &c. And more interesting still, the queen may at all times be seen, and nearly always engaged in depositing her eggs in the cells. Witnessing this single operation, hardly fails to call forth exclamations of astonishment from the most indifferent.

Mr. Q. is owner in whole or in part, of six different establishments. A part of those away from home are brought in on an easy wagon at the beginning of winter, to be housed. A dark room or dry cellar is used for the purpose. The holes in the top of the hive are opened, and they are then turned bottom up on small blocks, which admits a free circulation of air through the hive. No covering is put over to prevent the bees leaving—the perfect darkness of the room is depended on as sufficient to keep them quiet. The air in passing through the hive carries with it all the moisture generated by the bees, and the combs are kept dry and clean. One course of hives is first put down on the bottom close together—a shelf a few inches above them receives another tier, and others still above to the top of the room. Two hundred can be put in a room 10 by 12 feet square, in three courses. Such room is ventilated by an air passage four inches square at the bottom, and the same at the top. He has one room away from home, made above the ground, of the same size, well secured from cold and managed in the same way, with the same good results as two cellars that are used for the purpose; one of them under a barn, the other under the kitchen in the house. Stocks that would perish for want of bees sufficient to produce the requisite heat in the open air, can be wintered here, assisted by the warmth generated by the large number of stocks, without the least difficulty.

As soon as the air is sufficiently warm in the spring for the bees to fly well, the process of setting them out is commenced, and a few set out every fair warm day; if the sun shines warm and the air is still, the snow is no obstacle; when it is melting or has a crust it will bear the weight of a bee. The small number, (ten or a dozen,) set out at a time, is to prevent their mixing, which they are frequently disposed to do on their first issuing, especially such as are in a strange place. Half the bees belonging to three or four stocks have been known to congregate in one. This makes experience available and care necessary.

During the winter, the hives, covers, stands and boxes are made. Of the latter some 1,800 were made last winter; this number was found too few, and near 1,000 more had to be made in the summer. Most of the work is done by machinery; about fifty boxes 10 by 12 glass, were used and cut to the proper size by himself.

Mr. Quinby's system of management is followed successfully by several of his friends and neighbors. The proceeds the past summer in quite a small section of the country, have resulted in accumulating about 2,200 pounds of box or surplus honey, and 3,000 pounds of strained honey; the actual sales amounting to over $5,000, beside some three or four hundred lbs. of wax.

How many sections of country in our own State, of the same area, has produced an equal amount only to be wasted on the "desert air," that might have been saved by simply furnishing means to collect it? and that consists in keeping and multiplying stocks of bees. Why not save it? Mr. Quinby has given us an example, and demonstrated its feasibility by his practice.

Those wishing further particulars of Mr. QUINBY's system, should consult an advertisement in this week's paper, and obtain a copy of his "Mysteries of Bee-Keeping Explained."

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Dioscorea Batatas or Chinese Yam.

My opinion coincides with that of those who think this esculent very much, if not altogether a humbug, notwithstanding the flourish of trumpets which heralded the introduction of this "celestial" stranger among us the past spring. I planted the vegetable in question here, in excellent soil, and had it planted about eighty miles south of this, on the eastern shore of this State, near Easton in Talbot County. In neither instance did the tubers increase more than two inches in length, nor were their diameters very sensibly enlarged. It would require two or three dozen of such vermin of vegetables to equal in size one respectable sweet-potato. I think the Dioscorea batatas may be set down as "very small potatoes and few in a hill." E. L. R. *Baltimore.*

Good and Bad Management.

We have sometimes thought that if farmers could see before them in all their distinctness, bad winter management on one hand, and good management on the other, side by side, it might serve as a stimulus to adopt the one and avoid the other.

The bad farmer throws his fodder on the ground, to be trodden under foot, or to be worked into the mud. The good farmer provides good but cheap racks, where all is saved.

The bad farmer allows his cattle and sheep to feed in the open fields, swept by every wintry tempest, or storm of sleet and snow. The good one provides good, clean, comfortable shelter, where the animals thrive and keep fat, and save a large portion of the feed otherwise required to keep up their animal heat.

The bad manager permits his winter swine to procure their own lodging where they can best find it—in the corner of the barn-yard, in the manure heap, or under some transient pile of straw, exposed to rains and snow drifts. The good manager provides a comfortable hog-house, and takes especial pains that they have good *dry* bedding, and that every thing about them is kept *clean*.

The poor farmer lets his calves run wherever the older cattle drive them, and by spring they look very much like fig. 1; the good farmer gives his calves the best chance of all his cattle, feeding them with meal and hay, and keeping them well stabled by night and properly sheltered by day, and in spring they look like fig. 2.

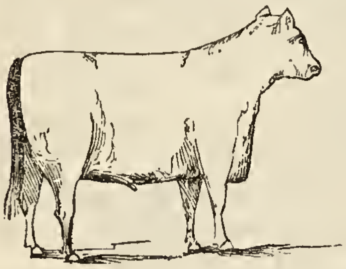
Fig. 2.

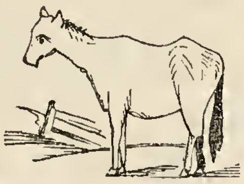
Fig. 1.

The careless manager lets his fowls roost in the apple trees, on the fence, or wherever they can make a foothold, or at the best, in his carriage house, just over the seats of the carriage as it is laid aside for winter; the careful manager has a comfortable special roost for all his feathered tribe.

The bad farmer does not wish to be instructed—he "knows already more than he can practice"—the good farmer takes an agricultural periodical, and learns from it every year fifty times its cost, in various practical hints.

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Hints for the Year.

There is not a *reading* farmer in the country who thinks he has attained perfection on all points. With such there is consequently much improvement to make, and the most practical, and substantially beneficial, should be undertaken first. In order to assist in this good work, the following hints are given:—

1. Rotation—Let the farm be suitably divided, and reduced to a regular system of rotation in crops. Many spend much time and thought in determining what they shall occupy this field with, and what they shall plant in that field; and perhaps they change their minds half a dozen times in a month, and after all get their succession of crops into confusion. We have known a farmer, who after fully digesting the matter, and arriving at the best rotation, adopted and continued it without a variation for twenty years—all his crops as a consequence, were heavy, and his fields continued clean. Farmers generally will arrange a course to suit themselves in their own peculiar circumstances of soil, climate, and markets. The following with variations, may be adopted: 1, corn and roots with the manure; 2, wheat; 3, clover, in meadow and pasture. This is a short and simple course. A larger one is, 1, corn and roots; 2, barley, oats, beans or peas; 3, wheat; 4, clover for meadow and pasture, for one, two, or three years. In districts where every kind of wheat fails, rye may be substituted, or perhaps better, this year of the course may be omitted, making it, 1, corn and roots; 2, barley or oats; 3, clover.

2. Buildings.—No farmer can carry on his business satisfactorily, who is not well supplied with farm buildings. Yet some buildings are more important than others. Shelter for his animals, and cover for his tools, carts, &c., are absolutely indispensible. The waste of food, and the reduction of flesh, and loss by death, which we have known to occur with many farmers, has been enough in two years, to pay for well constructed buildings. Implements, wagons, plows and cultivators, left exposed a year or two, will be either ruined, or so weakened by cracks, warping or decay, as to break easily, and result in a most serious loss of time in repairs, at critical periods of work. Sheltering grain, hay, and straw, are very neceesary, but less so than tools and animals.

3. Cleanliness.—This includes, first, cleanliness of animals, and every provision should be made for preserving them free from all kinds of filth, and for clearing away manure in the most thorough and expeditious manner; for dirty animals, not excepting even pigs, do not thrive nearly so well as clean ones. Cleanliness embraces, secondly, clean fields, or freedom from all kinds of noxious weeds. Some men are exceedingly sharp at a bargain with their neighbors, but allow a loss equal to ten times as much as they make by their sharpness, by the exhaustion of soil under great crops of mulleins, thistles, burdocks, elders, johnswort, pig-weeds, foxtail, red-root, chess, &c.

Income and Expenditure.—The farmer who would know by figures what part of his operations yield him the most profit, and by what he is losing money, must keep accurate accounts, not only of his purchases and sales, but with every crop, what it costs, and the sum it brings him—with all the *indirect* influences on the fertility of the soil, manufacture of manure, preparation for succeeding crops, &c.

Best Markets.—It is of great importance to ascertain whether selling corn, barley and other grain, to the grain dealers directly, or feeding it and converting it into beef, pork and mutton, brings the highest price—the value of the manure made by animals being also taken into the account. This can only be ascertained by careful experiments with the best and most approved modes of feeding, in connection with accurately weighing the animals at stated times, and weighing or measuring the food, and comparing carefully the results.

Underdraining, has in many instances paid for itself in two years, in increased crops. The loss by its omission is therefore very formidable. Every farmer should at least *try* it on a small scale, and observe its effects.

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Equestrianism at Fairs.—I have been surprised to see a notice in Country Gentleman, of the Auburn Ag. Fair, signed by Mr. Dill. He nor any one else could have written a better burlesque on said fair. The only attraction there, was the *race course*. I fear very much that such attachments to our fairs will run them down. Our farmers should drive all such equestrianism from the field. J. Wallace. *Victory, N. Y.*

Wolf Teeth in Horses.—We have a horse fourteen years old next spring. About six months since he went blind in one eye, and on examining his mouth we found *Wolf teeth*. This horse was at "mature age," and one year ago his eyes were sound as a dollar. H. S. *Steuben, Ohio.*

A Fact in Regard to Breeding.

It is a fact we believe well established, though seemingly not generally known, that the *first* calf which a cow produces is generally a more perfect specimen than any future one. This is especially true, it is said by observing breeders, in relation to Short-Horns. This fact may be explained by the very reasonable supposition that a fœtus in the womb will fare much better and become more perfect, when it receives all the spare nourishment of the system of the mother, than when part of that nourishment is carried off in the form of milk.

It is further thought by some to be a fact, that when a calf is allowed to suckle a cow there is more injury done to a fœtus in the womb, than when the cow is milked by hand. The sucking calf will do better indeed, but at the expense of the next offspring of the cow.

From the former fact alone, or from both taken together, it follows as an inference that in those cases in which it is desirable or well-judged policy to do the very utmost that can be done to procure an animal of the highest possible excellence, or to improve a breed, the parent female should neither be milked nor suckled, but be either a heifer, or placed in circumstances as nearly resembling those of a heifer as possible. A foster mother, possessing a full flow of milk should in such cases be provided for the calf, and the breeding cow dried up as soon as possible. Such a course is of course expensive and unnatural; but we are speaking only of cases in which it seems best to do the very utmost that can be done to secure the greatest perfection possible, or the production of a superior specimen of some particular breed. When high prices can be readily obtained as at present, for such superior specimens of a few favorite breeds, the expensiveness of the course suggested will be very certainly counter-balanced by an extra price.

After pains have been taken in this way to produce a superior specimen of any particular breed, judicious feeding, shelter and moderate exercise, must do whatever else can be done towards the full accomplishment of the object.

Horses Too Well Fed.

Messrs. Editors—Under the above heading, some comments upon extracts from the Veterinary Journal, rather excited surprise. In those comments doubts are expressed in relation to horses eating too much hay or grass when regularly fed. I have pursued farming as an occupation for more than thirty years, and my whole experience had led me to a different conclusion. Among the many horses which it has been my fortune to own during the time, a number of them were inclined to eat entirely too much hay when regularly fed; and this disposition seems to strengthen very much by habit. The supposition that a horse must be supplied with as much hay as he will eat, be the quantity more or less, is quite prevalent among persons commonly employed upon the farm. In some cases this idea is so persistent in its character, that it causes considerable trouble. Some of my horses are so strongly inclined to gorge themselves with hay, that they are often in a condition unfit for work upon the farm or travel upon the road; and it is hard to persuade an employee from stuffing the manger with hay as long as he finds the horse will eat it. This disposition is by no means confined to horses. Cows frequently gorge themselves with clover until they become enormously distended, and lay down in distress for half the night. The same consequence often happens when they are turned into a field after the corn and stalks have been carted out in the fall. Cases of death from both these causes have been mentioned to me by farmers in this quarter. Nothing of that kind has taken place among my stock, for the reason that they have not been suffered to run in such fields too great a portion of the day. I would that the habit were peculiar to the quadruped races, but alas it is not, and if the biped, gifted with reason, cannot exercise a proper control over his sensual appetites, what right have we to expect it among the brutes. R. M. Conklin.

Winter Management of Cattle.

Messrs. Tucker & Son—While travelling through Bainbridge, N. Y., a short time since, I was kindly entertained by Mr. John Banks, a young farmer of much spirit and enterprise, and as he has a "*new*" mode (to me) of feeding his cattle, which I think worthy of description, let me attempt it for your paper.

Mr. Banks does not stable his cattle, but allows them an open shed and yard, with stalls two and a half feet wide, to feed in. The hay or straw is thrown into the manger from above, which is all eaten without the least waste—they are prevented by an upright from getting into the manger.

My impression at first sight was, that the cattle occupying the stalls would be liable to be injured from other's "hooking" them, but the elevation of the stalls of about ten inches, is a preventive for this. No animal can injure another with head up; a *savage brute* always goes with *its head down* when bent on mischief; therefore cattle are all safe when in them. To more fully convince me on this point, I saw the underling cattle run there for protection, and then feed without fear.

Mr. Banks has a trough of running water in his barnyard. The cattle go in and eat until thirsty, when they go out and drink, return into another stall and feed again, having an opportunity to eat and drink as it suits their palate, which in my opinion much benefits their condition. When stabled they are only watered once a day; they drink too much, and frequently stand shivering in the cold a long time afterwards, much to their injury. I like this plan very much, and would advise you to get Mr. Pearsall of the same place to give you a description of his, which is an improvement; his being double stalls under his barn, the heads of the cattle facing each other, and lanes to his water trough for each class of cattle. I have a very favorable opinion of this mode of feeding, and such yards and sheds can be made warm enough.

Mr. Banks has a very clever Devon bull of first quality, bred by Mr. Van Rensselaer of Butternutts. His cows are three-quarter bred Devons, good size and shape, from which he will be enabled to establish a profitable herd. Wm. H. Sotham. *Owego, N. Y.*

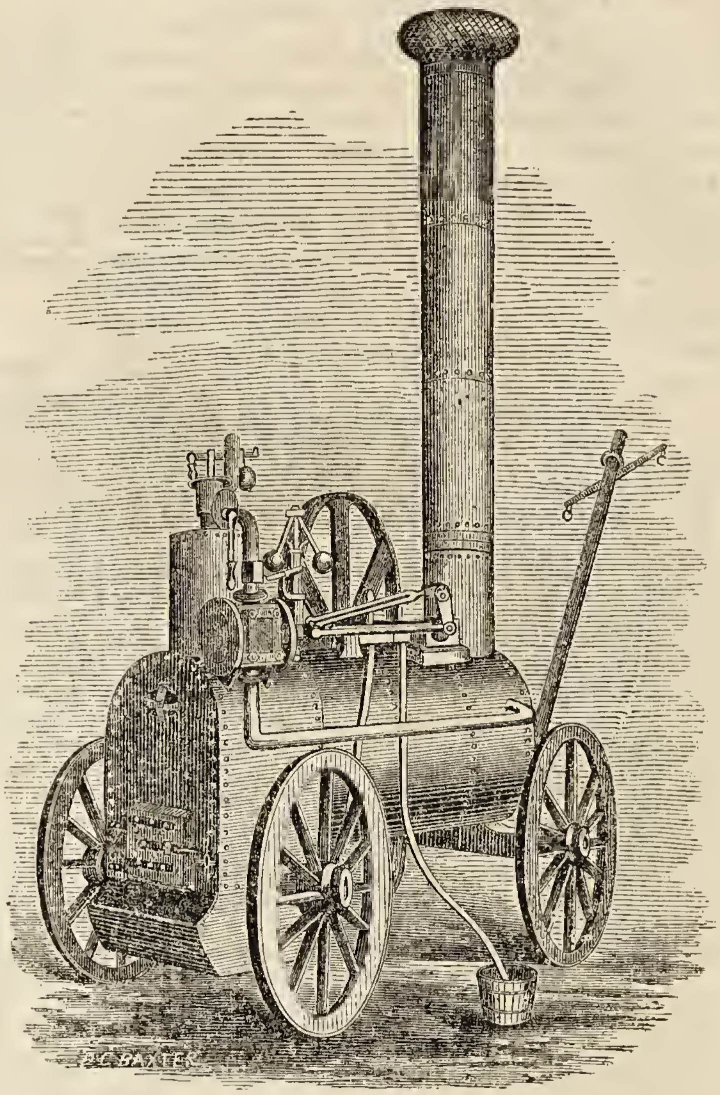
Wolf Teeth in Horses.

Wolf teeth are quite common, and many good horses are made blind by them. I had two horses or colts, which had them last season. The cure is simple and easy. Take a piece of iron with a square end, one-fourth of an inch in size. Let one hold the horse and open the lip so as to enable the one with the iron to place it against the tooth, and with a small mallet knock the tooth out. There is no root to the wolf teeth. The best way is to take the horse to a blacksmith shop, and the smith with his punch will knock them out in two minutes. When you see the horse's eye begins to run and look glassy, look for the wolf teeth. It is a small sharp tooth just forward of the grinders of the upper jaw. John S. Pettibone. *Manchester, Vt.*

Farm Engines.

The accompanying cut represents the portable steam engine manufactured by Messrs. Harlan & Hollingsworth at Wilmington, Del., an advertisement of which will be found in another column. It is manufactured with or without Wheels and Axles—built of different sizes, from four to forty horse power—includes a smoke stack made to strike, and covered with a spark catcher—is said to be perfectly safe, economical of fuel, &c., &c.

It is scarcely necessary to bespeak public attention for a subject already attracting it so generally as the employment of steam for farm purposes. We merely make the present a text for a brief description of a steam thrasher invented in France, and about a hundred of which are said to be already in use in the western part of that country. Its principal novelty is the idea of placing the boiler, engine, thrasher and all on the same frame, whereby ease of locomotion is greatly increased. They are constructed at from 3 to 4 horse-power—price between $700 and $800. In the steam-engine the motion of the piston rod is communicated by a crank shaft to a lying shaft armed with a fly-wheel; at the extremity of the shaft is a driving pulley of the same diameter as the fly-wheel. On this pulley a broad galvanised gutta-percha belt runs, and communicates the motion to a pulley of small diameter. This pulley on the shaft of the drum carries round the drum at a speed of 1200 revolutions a minute. In 12 hours this simple machine can, it is stated by the engineer, thrash from 600 to 800 bushels of wheat, the quantity depending on the length of the straw and the yield of the grain.



Dysentery in Animals.

We are not aware that *tannin*, in its modern preparation for the use of physicians, has ever been used for curing diarrhœa and dysentery in domestic animals. We are inclined to think that with proper use, it may prove one of the best of medicines, and we would suggest its use to those having charge of sick animals. We are induced to do so at the present moment through a statement we have just received from a gentleman possessing much medical skill in the *common sense* as well as scientific department of the art, of several cases where diseases of this character in the human system, were promptly cured by the use of oak decoction, when other remedies had little or no effect. He made simply a decoction of the inner bark of the white oak, about as strong as common coffee, and gave three swallows, once in three hours, a little buttermilk in the mouth instantly removing the unpleasant flavor. He thinks it has not merely an astringent but a *chemical* effect, as it instantly destroys all unpleasant odor We have little doubt that a proper quantity of druggists' tannin, which is found so efficient in human beings, would be eminently useful with cows, horses, &c.; or the decoction, above described, administered in the usual way by means of a junk bottle, a pint or more being given at a time, would doubtless produce an excellent result. There is a possibility that the decoction from the fresh bark may possess some additional virtues, not retained by the prepared tannin. We offer the suggestion, and not improbably some of our readers may have already given the remedy a full trial.

Hammon's Hand Seed Planter.

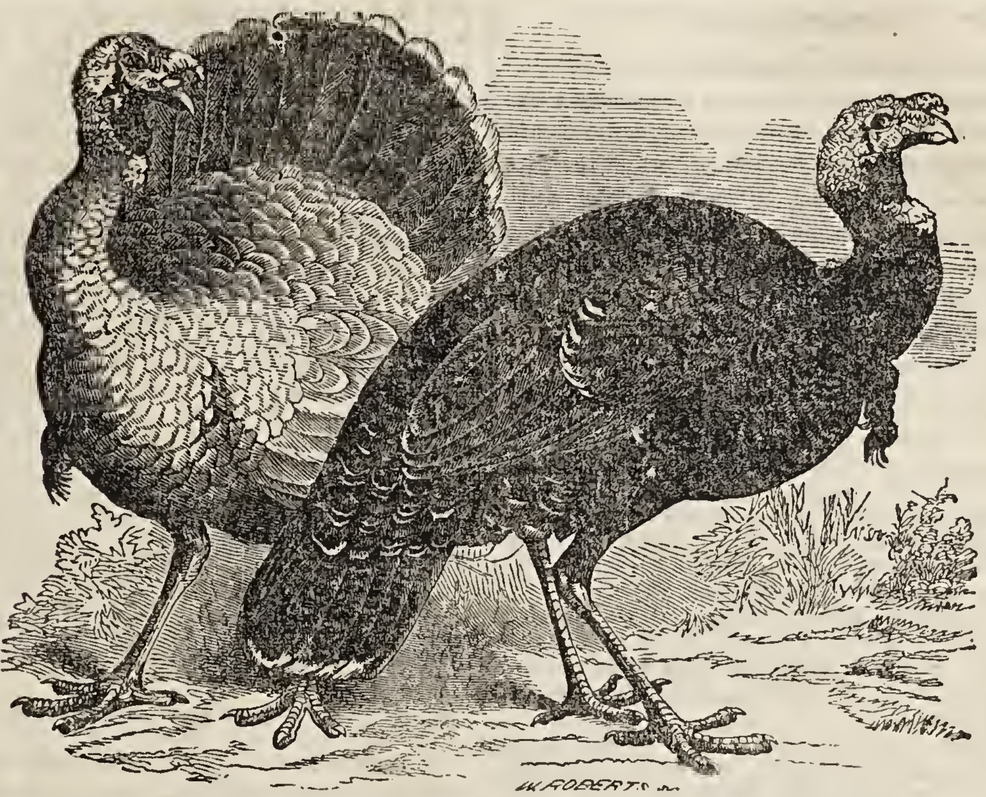
Mr. Heman B. Hammon of Bristolville, Trumbull Co., Ohio, has invented and patented a new hand seed planter, which is figured and fully described in the Scientific American, which, so far as we can judge from the figure and description, promises to be a valuable implemennt. That paper says:

This planter is extremely simple in all its parts, durable, and not liable to get out of order. It is adapted to the planting of corn, cotton seed, pumpkin seed, either mixed or not with corn, and to all other kinds of seeds that require to be deposited in hills. The construction of the machine is such that it cannot clog up, no matter what kind of seed is to be planted. It works equally well whether the ground be dry or moist. We regard it as an excellent improvement. For further information address the inventor as above.

Great Hay Crop.

A letter published in the Worcester Palladium, from Grenfield, Mass., says:

"A very considerable portion of the land in this town is of very excellent quality for agricultural purposes; and for the production of grass some of it excels any that I have ever seen or heard of. One gentleman, Henry W. Clapp, Esq., gathered forty-nine tons of good hay from seven acres of ground in one season. It was cut in two crops, averaging four tons to the acre at the first crop, and three tons to the acre at the second crop."



Improvement in Breeding Turkeys.

Messrs. Editors—For the few past years very much has been written and published in regard to the various breeds of dunghill fowl, while scarcely anything hasbeen said of the Turkey; and although he stands at the head of the list on the table, the majority of your readers are doubtless unaware that he is susceptible of any improvement in regard to size and docility. Four years since it would have been a difficult thing in this vicinity, to have procured a full grown cock turkey that would have exceeded eighteen pounds dressed weight, or a hen turkey that would dress more than ten pounds. Since then, I have, at considerable expense and trouble, so improved the turkeys in this vicinity, that I can now readily find many young ones that at this season will dress quite as heavy as our best old ones used to, when full grown, while our best full grown toms range from 25 to 30 lbs. dressed weight, and hens from 15 to 18 lbs., dressed. I have a pair, that when fat have weighed 52 lbs., live weight; and I have young toms that were hatched in June last, that now, Dec. 10th, weigh 22 lbs., alive, and hens hatched at the same time that weigh 17 lbs., live weight. I once raised a hen turkey which at nine months old weighed 21 lbs., alive. The difference between the live and dressed weight, may be obtained by subtracting three pounds from a tom, or two pounds from the hen. The result of a single cross on our old fashioned small breed, has scarcely failed to add four or five pounds to their average weight at this season of the year, on those hatched in May or June.

They not only weigh more, but are much more quiet and gentle, less inclined to quarrel among themselves, and being longer in maturing, it pays much better to keep them late (in Jan and Feb., when the prices are generally higher,) than it does the small kind. They are not perhaps a distinct variety, but have obtained their great weight by a continuous and judicious crossing from the largest and best. They are equally compact and snug made as the small kind. The only peculiarities they possess, that I can perceive, is, the hens, however old, scarce ever have a beard, and they are inclined to elevate their tails more as they walk, as though they were afraid of getting them drabbled and dirty. E. Allin. *Pomfret, Conn.*

Fruit-Grower's Association of Western New-York.

The Fruit-Grower's Association of Western New-York met, according to adjournment, in the Court-House at Rochester, on Jan. 7th, at 11 A. M. The President not being present, A. Stone of Hinmanville, was appointed pro. tem.

The election of officers being in order, tho following persons were elected to serve the society for the coming year:

President—John J. Thomas of Union Springs.

Vice-Presidents—H. P. Norton, Brockport; Asa Rowe, Sweden, and E. C. Frost, Catharine.

Secretaries—J. B. Eaton, Buffalo, and H. E. Hooker, Rochester.

Treasurer—W. P. Townsend, Lockport.

Executive Committee—P. Barry, Rochester; T. C. Maxwell, Geneva; H. E. Dickerson, Lyons; W. B. Smith, Syracuse, and P. R. Freoff, Auburn.

P. Barry, from the committee to prepare business for the Association, made the following report, which was adopted:

1. Small Fruits—which of them can be grown on an extensive scale profitably?
2. Shelter of Orchards and Fruit Gardens—Is it important, and if so, what trees, plants, and shrubs, are most suitable, and what form of plantation?
3. Hardy Grapes—Can their culture, in the open air, be made profitable?
4. Is it better te top graft old apple trees, or to plant new ones?
5. Is it a good practice to renew peach trees by heading them down?
6. Winter Pears—Can they be grown profitably?

The number of members in attendance was large, and much interest manifested. The exhibition of fruits—principally apples and pears—was large—much larger than expected. The following persons exhibited fruits, mostly fine specimens: Ellwanger & Barry of Rochester, 22 kinds of pears—A. Covey of Penfield, 21 kinds of apples—J. B. Johnson, Naples, 18 kinds of apples—R. H. Brown, Greece, 20 kinds of apples—J. Nelson, Brighton, 3 kinds of apples and 1 of grapes—L. Barber, Bloomfield, a fine seedling apple, called the "Golden Gloss"—J. Park, Rochester, 16 kinds apples.

Winter Management of Fruit Trees.

Those who have newly transplanted orchards and fruit gardens, should remember that winter affords opportunities for rendering them important assistance in growth. Where the soil is not rich enough at the time the trees are set out, it may be made so afterwards. The best time is to apply manure *to the surface* in the fall; and after undergoing a thorough washing into the soil by the fall, winter, and spring rains, it is to be spaded or plowed in before the heat of summer. If there is any reason to apprehend injury from mice, the manure used for this purpose should be either well-rotted or free from straw or coarse fibres, which might afford a harbor for these depredators. If no application has been made in autumn, it is still not too late, as the late winter and spring rains will do essential service. We have found it advantageous to add to the manure about one tenth to one twentieth of wood ashes. The spent ashes from the common domestic leach, is still quite strong and valuable for this purpose.

Washing the bark of young trees, which is infested with moss, scales, or eggs of insects, with a solution of sal soda of the shops, gives the bark a fine, clean, healthy appearance. Any mild day of winter is a good time for the work.

All fruit raisers will remember for a long time the heavy losses experienced last winter from mice. The sharp frost of the past month, together with the small amount of snow in most localities, has served to check them: and we hope not to hear from them soon. Banking up around the stems, as we have heretofore described, has always proved a most efficient remedy in all ordinary instances; but if this has not been attended to before the freezing up of the ground, it will be an important precaution to tread the snow about the trees a few inches on each side, whenever there is a fresh fall of snow or fresh drifts.

Owners of young orchards, who wish to avoid thick, badly shaped, or distorted tops to their trees, should remember the old rule, "Just as the twig is bent, the tree's inclined." A crooked shoot now, will make a crooked bough when the tree becomes large; small cross shoots will be large cross branches; an uneven head at the start, will make a lop-sided fully grown tree. By forming the head when young, every thing may be done with a single cut of the knife, that in future years would require hard labor with the saw, and leave large wounds besides. Mild days of winter afford good opportunities for pruning and shaping young trees.

We intend on a future occasion, to give more particular directions for pruning, with illustrations.

* * *

Management of Farm-Yard Manure.

Messrs. Editors—I notice that some of your correspondents, as well as the correspondents of other agricultural papers, are out against the heaping of manure from cattle and sheep yards. Now, I am satisfied these writers do not make manure, or else they are those who make all the fodder they raise, straw and all, pass through the stomachs of their stock, and the stock wade through and lay in mire in soft weather, with nothing to absorb the liquids, and on frozen lumps of manure in hard weather, by which means the stock come out in spring so poor that after three months good pasture they are not as good as they were the previous fall. I think such keeping will not pay. It would be absurd to heap such manure, as it is fine enough for all purposes at any time.

I would like to see these men take out the manure from such yards as mine, spread it, and attempt to plow it under. I generally tread under the feet of cattle and sheep by far the greater part of from fifty to seventy acres of wheat straw, besides part oat straw; and if that manure don't require heaping and rotting before it is spread on the land, then I have been living in ignorance of the best part of farming all my life. I have now 530 sheep and 15 cattle in my yards, and spreading straw daily. Any man of common sense might know that it must be rotted after summer comes, as it won't rot in our winters. That some of those who write against heaping manure, know nothing of the practice I have no doubt; for instance, your old correspondent S. W., of Waterloo, writes to the Genesee Farmer, that my plan of heaping manure may answer very well in the New England States, where they make compost of swamp muck. Now I don't know that S. W. ever cultivated an acre of ground in his life. He has resided in the village of Waterloo for the last 40 years, and I am told that during all that time he has cultivated his garden only. I suppose it never occurred to S. W., that I, and others who make wheat our principal crop, tread down more straw with stock than is done in a whole county in the New-England States. If men would only practice before they write, it "*would from many a blunder free them.*" John Johnston. *Near Geneva, Dec.* 24, 1856.

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Deep and Shallow Plowing.

So various are the opinions on this subject, as expressed in the manuals of culture, and the weekly publications, that positive authority can be found for either—leaving the anxious inquirer for truth in the condition of "the ass in the fable, standing between two stacks of hay." So far as my own observation has extended, I have never known any injury to accrue from sinking the plow to a generous depth—provided a corresponding application of fertilizing material was made to the land at the same time—but on the contrary, I have often known the labor applied to land almost entirely sacrificed, for the want of proper attention to depth in plowing.

There is scarcely any plant cultivated, the roots and fibres of which will not sink to the depth of 12 inches or more, if the soil is in condition to admit of such penetration. Take for instance *Indian corn*, a plant more extensively grown than any other—what depth should the land be stirred for the most advantageous growth of this crop? Should it be *six* or *twelve* inches? I say *twelve inches*—and whosoever attempts to operate less than this, "takes in at the *spicket* to let out at the *bung*." I know that there are those who say that their lands will not admit of being plowed so deep, and that they have raised as fine crops as any of their neighbors, and have never suffered a plow to sink on their fields to a greater depth than *six inches*—and that they would not thank a man to plow deeper than this. I have heard this said by gentlemen who stood *high* in the world, whose opinions were referred to as authority wherever they were known, chiefly because of the *authoritative manner* in which they were uttered. The truth is, the time is gone by when any man's *ipse dixit* is to be taken for law in the culture of the land or in relation to the rights of man. Facts, established by repeated experiments, in accordance with scientific demonstration, can only be relied on in the management of the farm, or in the government of the State. W. *Mass. Jan.* 1, 1857.

* * *

Potatoes.—The potatoes sent me from Albany, have all done well but the White Mercer, which nearly all rotted. The Strawberry and Chase potatoes are excellent. The English Kidney we think is much the same as the Kidney we have cultivated for a long time. W. Dennis. *Bucks Co., Pa.*

A Winter Enterprise.

There is nothing in which farmers generally exercise closer calculation than in ascertaining the market prices for their produce. A difference of a cent or two on the bushel is closely watched, and he who happens to sell at the very summit of ruling prices, is looked upon as especially lucky, even if the difference is only one per cent. from the amount obtained by his neighbors.

We here allude to the ordinary cash markets.

But there is another market to which farmers carry a large portion of their grain, where their usual acuteness of observation in watching the best opportunity, appears to have entirely forsaken them. In many instances they do not know within *fifty per cent.* what they really have obtained. We allude now to the market obtained through the agency of growing and fattening animals, which consume the crops, and in this way perform the office of *middle-men*, between the farmer on one hand, and the pork and beef buyer on the other. He who sells a hundred bushels of corn, knows to a fraction how much he gets for it; but for the hundred bushels fed to cattle, sheep, or swine,—all is dim conjecture. We have positively known some men, who have fed out grain to their animals by hundreds of bushels yearly and for many seasons in succession, who at last discovered by a careful trial, that the management they had adopted, only brought them one-half or two-thirds the price they might have had, if they had sold their crops directly in market.

Why are farmers so precise and attentive to prices by one mode of marketing, and so careless in the other? Simply, we suppose, because some little trouble or labor is required to ascertain what they get in one instance, which is not needed in the other.

Now we propose that all those who feel any degree of interest in the question whether they are to make or sink a hundred dollars yearly, in the way we have just pointed out, should make it a winter's task to determine the question with some degree of accuracy, and discard guess-work in future.

Nothing can be done without a *weighing machine*—either such a one as is used for weighing loads of hay, which is best,—or a large Fairbanks' scale, with a platform attached, so that an animal may be driven on it and weighed with little trouble. The first thing, then, is to ascertain the weight of all animals, and note the number of pounds. The food given them should be all accurately measured, and the various approved modes of preparing it adopted. Winter affords the best time to obtain information as to the best modes of feeding practiced by the best farmers; and a thorough and accurate trial may be now made. Although the process of fattening is most extensively carried on during *autumn*, yet that busy season does not admit of experimenting in full, unless some previous preparation has been made for it in the way we have designated; and there are enough ways of trying experiments in feeding store animals and winter beef, to occupy attention for the first winter. We are sure that no labor will ultimately afford a more profitable result.

It is hardly necessary for us to point out minutely the mode of conducting these experiments, but we would merely suggest in a general way, determining the relative value of hay and grain for producing flesh, the two variously combined, of hay and straw chopped fine as compared with unchopped; of ground, and cooked grain, with uncooked; the comparative effects of different grains and roots as food; the influence of shelter, cleanliness, and many other causes which will suggest themselves to the intelligent farmer.

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Good Pig.—Mr. Janes, Superintendent of the Orphan Asylum in this city, last week slaughtered a 19 months old pig, which weighed when dressed, 528 lbs.

Turnip Culture.

The Patent Office Report (1855,) contains the statements of several cultivators of the P. O. imported turnip seeds. Twenty-six named varieties were grown by each of four of the experimenters, and a less number by two others.

Mr. J. T. Andrew of West-Cornwall, Ct., grew Ashcroft's Swede and Lincolnshire Red Globe—"seed sown in drills, 18 inches apart—8 inches from plant to plant. The tops of the Lincolnshire Red were very large, extending from the opposite extremities of the leaves four feet."

Charles A. Nason of Hampton Falls, N. H., grew 26 varieties—sown in drills, 18 inches apart, plants thinned out from 5 to 8 inches.

The other experimenters did not state the distance of the drills or plants.

Having grown several of the same varieties, I am gratified to find they agree with me in highly commending Ashcroft's Swede and River's Stubble Swede turnips. For the table, I know of none better, and hope they may soon come into general cultivation. But I think Messrs. Andrew and Nason planted quite too thick to obtain either the largest crops or bulbs. In the Co. Gent. of Dec. 13, 1855, I gave some account of my growing several varieties of turnips—the drills 27 inches apart. Lincolnshire Red Globe, and two other similar varieties grew immense leaves. These plants were thinned to the distance of about two feet in the drills. With such tops, I thought two feet near enough. The turnips were very large and regular shaped, which I think would not have been the case had the drills been only 18 inches distant, and the plants from 5 to 8 inches, with tops 4 feet across. The Swedes were thinned out from 12 to 18 inches, and they were as nigh perfection as a turnip can well be.

I sowed a number of drills of Rape seed. They came up as thick as "spotters." I kept thinning till I got them about two feet each way, and was satisfied that was near enough. The past season again raised the Rape plant; neglected to thin them out in season, and instead of growing large, bushy plants, they ran up tall, and but few leaves, compared with those plants having a wide birth, so that what I gained in number was more than cancelled in loss of weight. Sun, light, air, and room, are necessary to grow the turnip tribe of plants in the greatest perfection. From 27 to 30 inches between the drills is the rule in England, for Swedes and most other turnips. Carrots, parsnips, onions, &c., will do well in 18 inch drills. L. B.

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Agricultural Exhibitions.

Hon. W. C. Watson—a delegate from our State Ag. Society to the Vermont State Fair—in his report, after speaking in the highest terms of the exhibition of horses, says:

While the friends of progress in our husbandry must rejoice at these evidences of advancement towards perfection in this noble animal, it may well be doubted whether the great prominence given to the horse at our Fairs, which each year becomes more apparent, is not calculated to exert a depressing effect upon the exhibition of stock in other departments. The fascination of the ring absorbs the attention of the spectators, and overwhelms every other interest The choicest show of cattle and sheep enlists little consideration, and our Fairs, under the influence of these circumstances, are in danger of degenerating into scenes of mere horse racing and trotting matches. The tendency of these facts must be to alienate from our societies the sympathies and co-operation of those who are adverse to such exhibitions. We were gratified by the absence of all female equitation.

Economical Modes of Feeding Horses.

Messrs. Editors—The usual mode of feeding horses during the winter months, which consists in giving them about as much hay as they will eat up clean, together with an allowance of grain, is a pretty expensive one. In seasons when there is an average or abundant crop of hay and grain, with the prices also about an average, few farmers, probably, ever make a calculation of the cost of keeping their horses in the usual way, or resort to any more economical mode for the sake of having a larger quantity of hay and grain to sell. But when the hay and the oat or corn crop fall below the average, and there is, of course, an insufficient supply of these articles for the general demand, and consequent high prices, then farmers, as well as those who keep horses in cities, are apt to have their thoughts employed at times upon the subject of what it costs to feed a horse during winter in the *usual* way, and to devise and adopt some mode by which the expensiveness of the usual one may be somewhat reduced.

The general impression seems to be, that when foddering is kept up for six months—say from the middle of November to the middle of May—that it requires, according to the usual way of feeding out hay, nearly three tons for a horse, and about two tons for a cow or ox. At $10, $15, or $20, or any intermediate price, it may very readily be seen that feeding out hay, in the common way, is a *very expensive* mode of wintering horses and other stock, without taking into account the value of the grain which is usually given to horses in addition to the hay. The importance of devising and adopting some more economical mode of feeding horses and other stock is also readily apparent.

Among the methods most readily suggested or most generally known is that of cutting up oats in the bundle, by means of a common cutting box. When cut into inch or half-inch lengths, it is said that a horse will eat up all the straw quite clean, and that when the bundles are of a goodly size and yield at the rate of a bushel or a bushel and a half to a dozen, a horse not working hard will require but little hay in addition to the chopped straw and grain thus supplied.

Another method spoken of very favorably as being at once very excellent and very economical, is reported by a neighbor from Pennsylvania, who says that one farmer with whom he lived when a young man, frequently cultivated a mixed crop of barley, oats and peas, for feed for his horses. The seed sown consisted of a mixture of two bushels of barley and two of oats, to one bush. of peas, and the crop is said to have been a very heavy one, when the soil was rich and the summer not excessively dry. As the crop was cut when when the barley was about ripe, or some days before the oats had attained to maturity, the oat straw must have had more nutritive matter as well as a better relish. It is also said that horses eat this readily when chopped up, and did well on it as their principal food. How the awns of the barley were got rid of, or prevented from doing mischief, our neighbor cannot inform us.

As corn, at usual prices, supplies more nourishment than any other article usually employed in feeding horses, it furnishes the essentials of an economical mode of wintering horses and other stock, so far as mere *nutriment* is concerned. At one cent a pound corn would cost only $20 a ton, and furnish twice the amount of nutritive matter which hay or ordinary samples of bran would do. But neither corn nor oats can be fed exclusively, though furnishing all the required nutritive matter, as a certain amount of *bulk* is as essential as *nutriment*. To obtain this, straw of any kind, with carrots or other roots may be used. To make straw palatable, it should be chopped up fine, and mixed with a little chopped hay, or *well coated* with meal of corn, or corn and oats mixed, so that the meal and straw cannot be separated. If a horse requires about 30 lbs. of hay per day, to supply the requisite amount of *bulk* and *nutriment*, it is easy to determine what amount he must have of straw, carrots, ruta bagas, or other bulky matter to obtain the requisite bulk, as the nutriment of that amount of hay may be supplied by about 8 lbs. of meal, with the addition of that contained in about 30 lbs of straw, or straw with carrots, which is usually estimated at one-third to one-fourth of that contained in hay. Of straw and roots together, or of straw alone, there need not be more, certainly, than from 25 to 30 pounds.

As this mode of feeding is sufficiently economical to allow of a little extra labor in preparing the food, we may mention a method of management which we have tried, with apparently good results. Taking the quantity of meal which we intended for a span of horses for the next day, or about 15 lbs., we put it into a large pail or tub, and poured upon a sufficient quantity of boiling water to cover it when stirred and settled. This was done the evening previous. Into this we stirred about two ounces of salt. This scalded meal being thinned sufficiently, next day was poured upon straw, cut very fine, and adhered better than when unscalded, so as to make the horses eat the straw clean.

For the sake of variety, which horses as well as other animals crave, we would cut up corn-stalks, coarse hay, or whatever other fodder might be about, occasionally; and when horses were much used, we would use a mixture of the meals of oats, beans or peas, with that of corn.

In some London stables we find that racks are never used, all the hay being cut up and mixed with straw. Of such a mixture, one-fourth to one-eighth being straw, 18 lbs. are given to each horse per day, with 14 lbs. of bruised oats, and 1 lb. of bruised beans. This is sufficient for a horse *constantly* worked.

We have notes of other modes of saving hay and expense, which we reserve to a future occasion, or until we hear from some of our brethern on this subject.

A Constant Reader.

Crops, Prices, &c., in Iowa.

Eds. Co. Gent.—To day it rains, as it has rained, or snowed or blowed, bitter and cold, about twice a week for the last two months. The season past, taken altogether, has been the most unpropitious one I have ever experienced during four years residence in Iowa.

What with sudden and severe extremes of wet and drouth, early frosts, and other untimely circumstances, no crop has been an average one, while some have been almost total failures. Owing to early drouth and defective seed a very "poor stand" of corn was got, and the early frosts of fall completely ruined all the replanted, so that in many instances on the upland prairies it was a total failure, and every where light. I think the crop must have been light generally—the deficiency in the hog crop being pretty good evidence.

Hogs are generally light, and as the packing season advances prices improve. Oats were very light, and hay also—potatoes very scarce—wheat light.

You can judge something of the state of things here by the prices in town. Corn is selling by the load at 55c. a bushel—oats 40c. or more—potatoes $1.50, cabbage 25c. a head, and imported from St. Louis. Onions $1.50, and none to be had at that. Cranberries 20c. a quart—dried apples and peaches 10c. a pound. Green apples, inferior, $3.50 a bbl. Milk 10 cents a quart—butter, good, 35c. a pound, inferior 25c. Cheese 15 to 20c. Hay, $25 for timothy, and 10 to 12 for prairie, per ton. Wood $5 to $8 a cord, and coal about 40c. a bushel.

From this you can guess what the creature comforts of the good people here amount to. The benevolent soul may ask what will become of the poor. Echo and the "well to do" may answer what?

It may seem strange to eastern people that such prices should prevail in the heart of the richest body of land in the world, but it is nevertheless true. Good living is harder to be got, and costs more at the west than in the east. And this state of things must last for a long time, for there is such a constant stream of emigration, and so large a proportion of our population is changing, or ready for a change when a good time comes, that but few will undertake any thing involving many years time and much labor. We have a city of 12,000 inhabitants and rapidly growing, yet there is not a single market gardener of any consequence, and not a fruit establishment of any kind. We have two small nurseries, but no fruit orchards of any consequence. It seems to me that a better opening for a regular fruit business does not exist. The growth of our western cities is far ahead of the improvements about them. Hawk-Eye. *Keokuk, Iowa, Dec.* 29, 1856.

Repulsion of Mice from Potato Fields.

Messrs. Editors—I have shared with the community in the troubles occasioned by mice the past year. Last spring I rented a plot of ground of a neighbor for the culture of potatoes. It was the central portion of an old meadow, where the mice had destroyed much grass the preceding winter. It was inverted by the plow in the early part of May, and planted immediately. I soon found a few of my potatoes failing to come up. On examination I found the tubers destroyed by mice. Others came up and grew very slowly, and with a slender growth. Here too, I found the tubers eaten off below the sprout, thus depriving it of the support of the tubers while as yet it was imperfectly rooted. Early in August I also found the mice and rats too, attacking the young potatoes in the hill.

My ground having been plowed too shallow early in the spring, when I was absent, I judged it best not to disturb the sod in the culture of my crop, especially as the hills were all put in much below the sod, with the aid of a grub hoe. Thus the rats and mice had the better chance to work out channels between the furrows.

The field contained a little more than one acre, and was occupied as an experimental one, in the culture of new seedlings, of which I had some two hundred and seventy varieties, originated in 1849, 50, '52 and '53, besides numerous imported and common sorts.

It seemed very necessary, therefore, to do something to save my crop. The following plan was both cheap and effectual, since I did not lose more than one bushel of potatoes from the ravages of these vermin in the whole field.

I made a mixture, arsenic and horse-feed, (corn and oats ground together,) using in the proportion of one ounce of the former to two quarts of the latter. I mixed them in a pail, working them thoroughly together in a dry state. Then I added a little water to make the arsenic stick, and to prevent the whole from being blown away by the wind.

Taking the pail on my arm, I went through the whole field row by row, searching out every hole, into which, when found, I put, with an old iron spoon, a spoonful of this mixture. Soon I found an occasional dead mouse, and also noticed that the holes grew old as though no longer used. The first application was made August 11th. The application was repeated August 22d because I found fresh holes, made probably by a new colony of intruders from the surrounding meadows, and a field of spring wheat a few rods off, which they greatly hurt when just ripening. Sept. 18th I made a third application. First and last I used about eight ounces of arsenic, costing about fifty cents, and one-half bushel of horse feed, worth as much more.

This field being far removed from human habitations, no domestic animal was exposed by this free use of arsenic. On digging the crop, such heaps of poisoned meal as remained, were carefully scattered or covered up, previously to the admission of cattle into the surrounding field of pasture. C. E. Goodrich. *Utica, Dec.* 9, 1856.

Profits of Root Crops.

Messrs. Eds.—Having raised some root crops, I will give you the results and also the manner of cultivation. I got the ground ready June 1st, by plowing twice, and putting on 20 loads short manure to the acre, and five barrels hen manure—used one of Emery's seed drills in sowing. After harvesting the results are as follows:

One-eighth of an acre mangel wurtzels, 125 bushels,		$31.25
Expense 2 days team,	3.00	
1 lb. seed,	1.00	
5 loads manure, 1.00,	5.00	
1 barrel hen manure,	1.00	
2 days hoeing and weeding, 75c.,	1.50	
2 days harvesting and dressing, 75c.,	1.50	
		$13.00
		$18.25
One-eighth of an acre purple-top turnips,—111 bushels at 25c. per bushel,		$27.75
Labor and seed as above, less 2 days, 75c. per day,		11.50
Balance,		$16.25
Half acre carrots,—410 bushels at 31c.,		$127.10
Expenses and labor,		33.00
		$94.10

Deducting expenses it gives me a balance of $128.60, which is a fair profit on three-fourths of an acre.

Last June I sowed half a pound of yellow Aberdeen turnip seed. It came up as well as the purple-top, looked well for some time, but in August they began to get yellow on the tops and died off, and when I harvested them I did not get two bushels good turnips on the whole.

Can you or any of your subscribers tell me wherein I failed, and how to apply the remedy? The ground was prepared the same as the other roots. J. Wallace. *Victory, N. Y.*

To Cure Dried Beef and Hams—Sausages.

Messrs. Editors—Last year, after using up our dried beef we bought some, and found it so much inferior that we desired that all might know how to make good dried beef or hams. For this purpose I send you our

RECEIPT FOR BEEF OR HAMS.

To 36 lbs. meat—1 pound salt—1½ table-spoonfuls saltpetre—one-third rubbed on once a day for three or four days, and they are ready for drying or smoking.

RECEIPT FOR SAUSAGES.

To 36 lbs. meat—9 or 12 ozs. salt—1½ ozs. pepper—1½ table-spoonful saltpetre—3 table-spoonfuls molasses—6 handfuls or more of sage.

I send you the above, hoping some one may get a slice of bacon without soaking out all the juice of the meat before it is cooked. E. S. Maltby. *Bristol, Conn.*

Cure for Foot Evil.

Sure cure for such "foot-evil" as cattle in this vicinity are troubled with:

Fill the diseased part with fine salt—then pour on a small quantity of spirits of turpentine. From one to three applications will usually effect a cure. N. C. Day. *North Leominster, Mass.*

"Farming on the Prairies."

With all due respect to "S. W. SUTHERLAND, near Bloomington," Ill., we must be permitted to enter our protest to the inferences drawn from the article he writes under the above caption, in the Co. Gent. of 25th Dec. last. Such statements, however possible or true, in occasional instances, are certainly very wide of the mark, *as a rule*. New-York we have supposed to be considerable of a State—agriculturally, as well as commercial and manufacturing—particularly central and western New-York. No part of the United States can show an agricultural district of equal extent, where so much wealth has been accumulated in so short a time since its settlement, nor so dense a population to the square mile as in the central tier of counties west of Utica, nor a country where the soil holds its fertility better, and supplies the farms within it more substantially with fuel, fencing, and water, as well as variety in products for family consumption. Yet there is not one among our New-York farms, with all its wealth of improvements and conveniences, which can come up to our correspondent's specimen of production on a *new prairie* "farm of 640 acres, with $10,000 capital."

Let us look at this subject carefully, and in detail. From what we know of the wild prairie lands about Bloomington and elsewhere in Illinois, they may be bought at $5 to $20 an acre, with no wood, or running water, or springs, upon them. Whether these lands are worth that in reality, may be a matter of opinion; but as in these wild-excitement "western" times they do sell for that, on part cash and part credit terms, we will let it go as their value—say an average of $10 per acre. Thus, for $6,400 you have a naked farm of 640 acres. Suppose you pay $1000 down, you owe, of course, $5,400, on which you have got to pay principal and interest, in time, or lose the whole. Now, to live on this farm comfortably, and secure your crops, as Mr. Sutherland proposes to enclose it all, there must be a house worth at least $1000, and out-buildings, such as stables, &c., worth $500 more. Then it must be fenced. As all the fencing is to be bought, a dollar a rod is the very cheapest it can be built for. Thus, a fence all round it will be four miles, or 1280 rods long—$1280. But, there must be some small fields, yards, &c., to make it possible to occupy it with any sort of economy or convenience. Another mile of fence must be added, costing $320. To this add gates, &c., &c—$400 in all will be required, making $1,680 for that item. After all this is done, both fuel and water is out of sight, only when it rains, or a car load of lumber passes by, or within the distance of a railroad. How much these items will cost, is not told us, but one to five hundred dollars may be expended in sinking a good well, and the family fuel for one year, 50 cords, or its equivalent in coal, will cost at least $250. There are about $1,000 in teams, another thousand in implements, tools, &c., together with a few cows and pigs for household use, no marketable or feeding stock being included. Here then is the outlay either in cash expended or its equivalent, viz:

640 acres land at $10 per acre,	$6,400
Buildings on the same,	1,500
Fencing do	1,680
Water, say,	250
Wood lot or its equivalent in annual cash to buy wood, say,	3,000
Teams, implements, family stock, &c.,	2,000
All fixed capital,	$14,830

Here, then, is the snug little sum of near $15,000 expended in dead capital before you produce a dollar from the farm. Now it is asserted that $9,600 can be realized from the first crop of wheat—that is, provided every acre is sowed, producing 15 bushels to the acre, and it brings a dollar a bushel. Let us ask, what are the family to subsist on while this wheat is growing? Where is the garden, the corn-patch, the potato-field, pasturage for cows, grass for winter forage, &c., &c.? Why, this is to be got off of other people's land adjoining you, who don't cultivate it! But suppose the adjoining owners are as shrewd as yourself, and do occupy and cultivate their lands—what then? But we will not cypher any further on this item. "When once a-going," an Illinois farm is to produce this:

100 head of Beef Cattle at $36,	$3,600
150 fat Hogs at $10,	1,500
5,000 bushels Wheat at $1,	5,000
1,000 " Barley at $1,	1,000
	$11,100

All with "the labor of 6 men, *except* in harvesting, and threshing-time," &c., &c. All this looks well, if there were to be no debtor side to the account. Let us see how this is: All this labor of raising the grain, feeding the stock, &c., cannot be done with less than the labor of eight men *the year round*, instead of six, with extra work as related. This labor is worth

$200, at least, per man, say	$1,600
The cattle have got either to be bought for feeding, or raised on the farm, which is the same thing, at full $25 a head, which is	2,500
So with the hogs at $6 a head,	900
We will take off 40 cents a bushel off the wheat and barley, as 60 cts. is all its average value at Bloomington,	2,400
Interest on $15,000 capital invested in farm at 10 per cent,	1,500
	$8,900

From $11,100 turned off the farm deduct $8,900, and you have left the sum of $2,200 as the nett product of this 640 acre farm! throwing in the support of the family, extras, &c., &c. We may not have got all our estimates mathematically correct, but they are a sufficient approximation to correctness for the purpose. We may add, too, that 50 bushels of corn to the acre is a full average crop for any farm in Illinois, old or new, and so is fifteen of wheat—the whole average is not exceeding twelve, and part of that *spring* wheat, worth 15 to 20 cents a bushel less than winter wheat. Then, as to the little family comforts, luxuries, schools, society, churches, roads, &c., &c., where are they? But as these are matters of taste, simply, with many people, we will throw them out, and put the question on the money results alone. Let our readers judge how superior Illinois farming is to that of New-York, with our lands at double price to theirs, and prices of grain in about the same proportion, and meats fifty per cent. additional to theirs, and all the enumerations at what the parties choose to estimate them.

The *truth* is what we want to get at, and our object in thus showing up both sides of the story is that our readers may judge dispassionately, and without the plausibilities of a *rose-colored* story to warp their cooler judgment. The prairie country of the west is a broad, beautiful, fertile land, inexhaustible, almost, in soil, greatly wanting in many of the necessities of every day life, yet rapidly opening, by the construction of railways, to population, wealth, and solid improvement. We glory in its progress. It is the country for the farmer of limited means, and a growing family; for young mechanics, and other classes of earnest, hardy, industrious adventurers. But at present prices for wild lands there, with capital in hand, we say that farms with all the necessary improvements on them, can be as well or better bought in New-York, as west of it—or in Ohio, or Michigan, as cheap as in Illinois. Speculation, and the last two or three year's prices of farm products have had too much to do with the selling price of prairie lands for the farmer who wants to found a permanent home for occupation. Long credits on land purchases, with ephemeral high prices for farm products, have lured many an adventurer with limited capital into investments and obligations far beyond his ability, we fear, to execute. Yet we hope for the best, and wishing all possible prosperity to our prairie friends, and a safe deliverance from many of their prospective obligations, we would advise the snug farmer already planted on his comfortable acres in New-York, and its adjoining States, to look well before he parts with a *certainty*, to leap into an *uncertainty* for a future home. In 1835 and 1836, millions of acres of wild lands were monopolized by speculators in the anticipation that no land would be left beyond them for the settler. Now, States and territories far *beyond* these are opened for settlement, with ten times the area of land, and the insatiate maw of land absorption is as eager as ever to clutch it. We hope not with like consequences, yet we fear and tremble lest in too many cases it may be so. A.

A Good Method of Storing Potatoes and other Roots.

One of our "constant readers" informs us that he is so *well convinced* of the *beneficial* consequences of a method of storing turnips, potatoes, parsnips, and other roots in the cellar, which he was led to adopt some years ago from a hint or recommendation in the *Cultivator*, that he is desirous of again calling attention to it, that others may be induced to try it, and may be benefitted by it as he has been. He states that he keeps several loads of sand or sandy loam in his cellar, and when he puts any potatoes or other roots in his cellar he packs them in boxes or barrels, and sprinkles in a layer of sand upon every layer of 6, 8, or 10 inches of the roots. He is not particularly careful to fill up *all* the interstices between the individual roots, nor to bury or cover completely each layer, but he is careful to make a complete covering at the top of each barrel or box, to exclude as much as possible all light and air.

Previously to adopting this practice his potatoes would lose flavor and quality during the winter, and his turnips would become pithy and wilted. Other roots would also become deteriorated in quality and flavor. Ever since he has adopted this plan he has found all his roots in much better condition during winter and spring. They remain fresh as when first put into the cellar; and as the sand has never yet become dirty, he uses the same year after year.

Since adopting this method of storing roots of all kinds in his cellar, our informant has found that two results follow from it, which it may be of some utility to some of our readers to mention. The first of these *incidental* results—apart from the *main* result, which is the preservation of the roots in a superior condition as to freshness and flavor, or good quality,—is that potatoes and other things thus stored are not nearly so easily chilled or frozen in very severe cold weather. This fact may be of use to those who, like our informant, have cellars which no amount of banking can make proof against the inroads of very severe cold.

The second of these *incidental* results is that potatoes and roots thus stored begin to sprout in the spring a little earlier than they would otherwise do. This should be remembered and provision of some kind made to prevent it.

When there is a want of leisure or other convenience to store potatoes, &c in boxes, barrels, or small bins, this method may still be adopted in a modified form. The articles to be preserved may be put into a pile on the cellar floor, and sand, sandy loam, or some other "*clean dirt*," if any such Hibernian article can be found, may be sifted or shoveled over them, so as to exclude air and light.

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Poultry Book.—In our recent notice of Mr. Bement's new work on Poultry, we neglected to state as we should have done, that an edition has been published with *colored plates*—price $2.50.

Management of Bees in Houses.

Messrs. Editors—For the benefit of Jared Case of Troy, Pa., and others, I will give my experience in the building of Bee Houses. I built a house or room about eight years ago in the attic of my dwelling-house. The room is six feet square, and six feet high, lathed and plastered; it being under the roof, I made a spout about six feet long, to take them outside of the house. I made the spout six inches square, where it entered the bee house, and tapered it down to one inch by six, where it came out side of the house. My reason for doing this was, to give the bees a chance to pass without being crowded. I filled up one half of the room opposite the door, with slats about twenty inches above the floor, leaving about six inches space between each slat, and ten inches between each tier of slats. On the topmost tier, I placed two good hives about two feet apart, and when the weather got sufficiently warm for them to commence work, they did little else than fight, until there was as many killed as had originally belonged to one hive, and what few were left went into the other hive, and have since worked well, having filled up the space between the wall and the hive, and above and below. I cut off the side of the old hive, and have taken out all of the old comb. I always take out the old and blackened comb, and let my bees have the best to live on. They are getting very strong, and do not swarm. The advantage I claim for this situation, is that they are secured from the sudden changes of the weather, and when elevated above the ground the millers have but a poor chance. They need ventilators; I punched holes through tin and nailed it to the lath before it was plastered.

To those who have a large number of hives, and wish to raise honey without having the bees swarm, I recommend the following plan: Place your hives under shelter in a dry situation, in the upper rooms of an out-house or dwelling—arrange your hives on a bench above the floor—on the top of each hive bore two or more large holes, and put a temporary cover over these holes that can be easily removed. When the hive is sufficiently filled, take the cover off the holes on the top of the hive, and place a hive about a size larger on the top of the hive and over the holes and let the bees work up, and when the topmost hive is sufficiently full remove the lower hive and put the upper one in its place, and so keep changing the hives alternately, always increasing each hive in proportion to the increase of the bees. The under hive should be removed late in the fall or early in the spring, while the weather is sufficiently cold to make them torpid. When exposed to the air, you can easily remove them from the comb in the old hive and drop them in the holes in the top of the other hive, where the heat of the bees will soon bring them to life.

The best shape of a hive to keep bees from swarming is, to make them nearly square. They will swarm in a long narrow hive of the same dimensions sooner than in a square one. Place the benches as near the wall as convenient, so that the bees will not waste too much of their precious time in traveling. S. G. Clark.

Jamestown, Mercer Co., Pa.

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Good Crops.—The Lewis Co. Ag. Society, at its late meeting awarded premiums on field crops as follows:

Lewis Stephens, Lowville, for ten acres wheat, yielding 200 bushels.

Norman Goudy, Lowville, 2¾ acres barley—produce 98 bushels.

A. H. Lee, Turin, for one acre Indian corn—yield 80 bushels, and to Abel Foster, Turin, for 71½ bushels.

Corn meal should never be ground very fine, as it injures the richness of it.

Practical Farming—Good Crops.

Messrs. Editors—I have been for a number of years interested in agricultural pursuits, and during that time have devoted a part of my winter evenings to agricultural reading. Most of the books and essays begin with telling us a long story about what Lord A, B, or C, has done in England—or how the Belgians, Germans, Swiss, French, Italians or Chinese, conduct their farming—in short they have ransacked the whole world for material, and overlooked what to us is the most important—*Home*. What, to us, is the manner of cultivation among other nations? Our soil, and more especially our climate, are entirely different. What would ensure success in one place would only ensure failure in another, with a differing soil and climate—even in our own country. How much good in a *practical sense*, would an essay on the sugar cane or rice growing, do to a Berkshire farmer? It would only add to his fund of information. I contend that all countries and all places, have a peculiar method by which the most productive powers may be developed. What would be good farming in Massachusetts, might not prove so in the same latitude in the western states; and to go nearer home, what would be profitable to raise on a dry gravelly or sandy soil, would not do on a wet or clayey one. It is true many crops adapt themselves to the soil to which they may be applied, and give a fair remuneration for the manure and labor devoted to them; but still if they had been planted on soils more congenial, how much greater would have been the increase.

Almost every farmer has a variety of soils to cultivate, from the dry gravel knolls to the unreclaimed peat bog. What to him would be of real utility, is to know the crops which are best adapted to each variety of situation, and how in the cheapest manner his land may be improved; and the best way to come at it is, I think, for the farmers to be more willing to communicate through the various Agricultural Societies and Journals, the results of their experience. How many of the tens of thousands who visit our cattle shows, ever think of putting on paper the result of their own particular farming, and handing that report to the secretary of the society. Here and there you see an account of a great crop of a certain variety of vegetable produce, and the essays, one half are written by men who never held a plough or swung a scythe.

Come forward, gentlemen, and tell your own stories. You, all of you, possess a fund of knowledge which is to you the secret of success. Let us have it, and in giving it to others you may receive a return that will be of incalculable value to you.

You need not say you dont understand writing well enough. If your own hands are too used to the hoe or plow to write easily, you have daughters, sons or friends, who would be willing to write as you dictate to them.

Now I don't mean to preach what I don't practice. My lands are from a coarse gravel to a peat meadow; and to begin, I cart clay to my gravel land, and gravel to my peat land, and I think it is of great benefit, and the work is done in winter.

I plow my clay lands in the fall and lay the furrow slice at an angle, and let the frost work at it.

Gravel lands are plowed in the spring, and the compost (for I use it for every thing,) spread and plowed in, deepening the plowing each year.

My meadow land is drained so that the water is low enough to prevent the growth of the old water grasses —put *a pin in there*—(you would seldom hear of a reclaimed meadow going back to bull heads and water grasses, if they drained it lower)—in the first place.

My compost for dry lands, is meadow mud, leached ashes, and cattle manure—for clay lands, long manure and peat—for low land, night soil, loam, horse manure and sand.

I can get 400 to 500 bushels onions per acre. Manure, 7 cords compost of leached ashes, cattle manure, muck, and 20 bushels bone dust, plowed in in the spring. Sow as early as possible. Of carrots 20 tons per acre —manure the same. Cabbage, 30 tons, or 4000 heads of about 15 pounds each—manure, with the addition of a little night soil, is the same as for onions. Corn, I get 50 bushels per acre—same manure, harrowed and plowed under.

My leached ashes I purchase, and the bone dust comes from Boston, and these two have done more than any other manure on my light lands.

Potatoes I plant on the low lands, and when they don't rot, get about 175 bushels per acre.

Come, brother farmers, here is a rough outline; perhaps I may sometime go more into particulars. If any thing is of use to you in it, I am very glad, and in return give us all the methods of your own management. R. *Danvers, Mass.*

We thank our correspondent for the above, and hope he will favor our readers with further and more particular details of the modes by which he produces such crops. While there is perhaps some justice in his remarks on agricultural reading, we are a little afraid he forgets that *the great principles that must underlie all good farming are the same wherever it is practiced.* Drainage, rotation of crops, manures and a clean and well tilled soil are alike essential to it in Europe and America—as a general rule,—the exceptions being confined to new lands and rich river bottoms as yet undeprived of their original and almost exhaustless wealth of plant food. Hence a knowledge of the practice of good farmers among the "Belgians, Germans or French," is as likely to give a Yankee the clue to successful practice at home, if understandingly used, as if the transactions of which it consists had taken place in his own immediate neighborhood. We have learned much of our best farming from the systems practiced in Great Britain, and are constantly learning more. To carry off the surplus moisture of the soil, and keep it so that the roots of plants shall easily penetrate it, and the moisture of the atmosphere be absorbed by it in seasons of drought; to economize and most economically apply the manures of the farm; to select the best soils for particular crops and to cultivate them in the most profitable way, are all subjects on which we can yet profitably consult transatlantic experience.

But it is necessary that the farmer should exercise a power of generalization, if we may call it so, by which he can *separate the details, from the theory*, of practice elsewhere, whether in another county, another state or another continent. He must think and judge for himself as to how far the experience of another man will *suit* his own soil and climate. There is one thing certain that we shall never have a Compendium of farming for every farm in the country—and so long as this is true, so long will it be essential to success to *think out*, every man for himself, at least to some extent, the *way in which he shall individually apply* the great rules we have shown to be fundamental in all enlightened agriculture.

Meantime, to elucidate these principles and bring them to the knowledge of all farmers; to induce them by degrees to improve their present modes of practice, and to place before them in the strongest light the advantages of doing so,—these are just the reasons why, with our correspondent, we invite them all to "tell their own stories" in our paper, and for these reasons also that we ask their aid in circulating it, and in drawing from others their ideas and modes.

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Back Vols. of The Cultivator.—The volume of The Cultivator for 1856, we have now ready, stitched in paper covers, 75 cents and bound in muslin, $1.00.

Agricultural Societies.

U. S. Ag. Society.—The annual meeting was opened at 10 o'clock on the morning of Jan. 14th, Prest. Wilder in the chair. The attendance was larger than usual. The President read his annual address, containing many practical suggestions, and showing the Society to be in a flourishing condition. The election of officers took place on the 15th, when Col. Wilder was re-elected President. The list of Vice-Presidents has not come to hand.

The following is the Executive Committee: Governor King of New-York, Gibson Mallory of Kentucky, Dr. Elwyn of Pennsylvania, D. J. Browne of the District of Columbia, Frederick Smith of New Hampshire, Dr. Stevenson of Indiana; Secretary, B. P. Poore of Massachusetts; Treasurer, B. B. French. Secretary Guthrie presented an invitation for the Society to hold its next exhibition at Louisville, Ky., which was accepted. A resolution in favor of purchasing Mount Vernon for an Agricultural University was discussed and adopted. The merits of the Chinese sugar cane were discussed.

Resolutions were adopted approving of the recommendation of the Commissioner of Patents in relation to obtaining accurate statistics of the staple productions of the United States, and recommending the Governors of States and Territories to adopt the plan proposed.

Conn. State Ag. Society.—The annual meeting which was held at Hartford, Jan. 7th, was one of unusual interest, growing out of the discussions on the report of the Executive Committee, who made several important suggestions in relation to the management of the Society—the question of a permanent location, of the employment of a chemist, of the establishment of an agricultural museum and library of American and foreign agricultural books, reports, transactions, etc., and the recommendation of standard weights for measures of grain and root crops. The recommendation for the appointment of a chemist, we rejoice to see, was adopted, and Prof. S. W. Johnson of Yale College, nominated for the place. We consider this an important step—one from which we anticipate the best results.

The treasurer reported the receipts for the past year at $15.129.28—the payments $15.796.40—surplus in the treasury $4,285.48.

Officers chosen for this year:—

President—Nathaniel B. Smith of Woodbury.

Vice-Presidents—Chas. H. Pond of Milford; Norman Porter of Berlin.

Directors—Hartford Co.—Dr. H. A. Grant, Enfield; New Haven Co.—B. H. Andrews, Waterbury; New London Co.—Dr. D. F. Gulliver, Norwich; Fairfield Co.—E. A. Hough, Bridgeport; Windham Co.—W. H. Putnam, Brooklyn; Litchfield Co.—T. L. Hart, West Cornwall; Middlesex Co.—Fred'k Hall, Middletown; Tolland Co.—R. B. Chamberlain, Coventry.

Cor. Secretary—Henry A. Dyer of Brooklyn.

Rec. Secretary—T. S. Gold, West Cornwall.

Treasurer—F. A. Brown, Hartford.

Ohio State Board of Agriculture.—This Board consists of ten members, who hold their places for two years, five of whom are elected each year, by a convention of delegates from the several County Agricultural Societies in the State. At a recent meeting of this body, two members of the old Board were re-elected, and three new ones, to fill the places of Messrs. Ladd, Worthington and Steele, who declined a re-election. The members of the Board for this year are as follows:

Alexander Waddle, South Charleston
Lucian Buttles, Columbus.
R. W. Musgrave, Sulphur Springs.
B. Stedman, Cleveland.
Abel Krum, Cherry Valley.
G. W. Banker, Marietta.
John K. Green, Carthage.
John M. Milliken, Butler county.
T. S. Webb, Stark county.
Luther Smith, Logan county.

This Board has been organised by the election of Mr. Waddle as President; Mr. Milliken, Rec. Secretary; Mr. Buttles, Treasurer, and John H. Klippart, Cor. Sec'y, in place of Dr. Sprague who is about to remove to Iowa. Mr. Klippart has been connected with the Ohio Farmer for two years past, and will make an efficient and valuable officer.

Vermont State Ag. Society.—The annual meeting of this Society was held at Middlebury on the 8th of Jan., when it was reorganized and a new constitution adopted in accordance with an act of incorporation passed by the State Legislature at its late session. The following officers were elected:—

President—Frederick Holbrook, Brattleboro'.

Vice-Presidents—Edwin Hammond, Middlebury; J. W. Colburne, Springfield; Henry S. Morse, Shelburn; Henry Keyes, Newbury.

Directors—E. B. Chase, Lyndon; H. H. Baxter, Rutland; Jacob Scott, Montpelier; Jona. R. Potter, St. Albans; Nathan Cushing, Woodstock; David Hill, Bridport; John Gregory, Northfield; John Jackson, Brandon, and J. W. Vail, Bennington.

Cor. Secretary—D. C. Linsley, Middlebury.

Rec. Secretary—Charles Cummings, Brattleboro'.

Treasurer—Edward Seymour, Vergennes.

The Annual Meeting of the Albany Co. Agricultural Society was held at the City Hall on Monday, the 5th inst. The Treasurer reported cash in hand, $324.32, and the following list of officers were elected for 1857:

President—Capt. Jos. Hilton, New-Scotland.

Vice-President—C. W. Goddard, Albany.

Secretary—A. F. Chatfield, Albany.

Treasurer—Luther Tucker, Albany.

Directors—J. McD. McIntyre and Henry Russell.

The meeting passed off with unusual good feeling, and it is hoped that the friends of the society will unite their efforts to place it at the head of similar organizations in this and other States. Before adjourning, the customary vote of thanks was passed to the retiring officers, and it was unanimously voted to amend the constitution, so that the annual meeting shall hereafter take place on the *second Wednesday*, instead of the first Monday, of January.

Madison Co. Ag. Society.—Annual meeting at Morrisville on the 6th of Jan., when the following officers were elected:

President—John R. Chapman of Sullivan.

Vice Presidents—J. C. Tillotson of Cazenovia; Gardner Morse of Eaton; John Potter of Stockbridge; Stephen Hill of Fenner; Jonathan Wells of Nelson; David Maine of De Ruyter; Truman Baker of Lebanon; Oliver B. Hinckley of Brookfield.

Secretary—Hiram D. Cloyes of Eaton.

Treasurer—Lorenzo D. Dana of Eaton.

Directors—Butler Gilbert of Hamilton; Wm. P. Wells of Cazenovia.

Premiums were awarded on spring wheat to R. S. Ransom, for 69 bushels on 2 6-10 acres—on corn to Ed. Richardson, 81 bushels 24 lbs. per acre—on potatoes to A. L. Brown for 171 bushels on half an acre, and to W. P. Wells for 173 bushels on half an acre. A discretionary premium was awarded to R. S. Ransom of Fenner, for a very fine specimen of *Osier Willow* raised by him in the town of Fenner, and manufactured into baskets.

Lewis Co. Ag. Society.—The annual meeting was held at Houseville, Dec. 23, when the following officers were elected for 1857:

President—Edmund Baldwin.

Vice Presidents—Joseph House, J. A. Willard, Jas. H. Miller, Geo. Woolworth, Eli Hough, Abner A. Johnson.

Cor. Sec'y—Cornelius E. Stephens.

Rec. Sec'y—Mortimer Smith.

Treasurer—M. M. Smith.

Executive Com.—C. C. Riggs, L. S. Standring, Albert Foster, J. C. Collins, Emery Allen.

Committee on Farms—Jas. H. Miller Joseph House, L. S. Standring.

Good Luck.—Col. L. G. Morris' celebrated cow "Duchess 66th," produced on the 31st of last month, two heifer calves, mostly red, of great promise. They were sired by his "Duke of Glo'ster," 13,382.

Inquiries and Answers.

Cement for Underdrains.—I wish to underdrain a piece of land on my farm. Allow me to ask you and your readers, their opinion of my "theoretical plan." Tile in the west cost immensely, and stone are not always to be had. I propose to make a drain of water lime after the manner of making water lime pipes to carry water, with this difference that the drain would be of the horse-shoe pattern, and perforated with holes by some sharp pointed tool after it hardens, or at the time of laying it be pierced with pieces of pumpkin, potato, apple, or anything that will quickly decay and leave no "trace behind," except the holes where they "once where." It appears to me to be simple, cheap, and effectual, especially here in the west. Chas. S. Foster. *Leavenworth City, Kansas.* [If the cement tubing can be made cheaply, we see no objection to it. We should prefer making clear perforations at once, as the decayed matter would not soon work out, and would probably stop the passages.]

Tile-Making.—Can you or some of your correspondents, give the manner of making tile—what kind of clay (if it requires any particular kind, and the proportions of sand and clay—and in fact, all the information necessary to enable a green one to go into the manufacture; also, the cost of a good tile machine, and where it can be obtained. A Subscriber. *Chester, N. Y.* [Clay, suitable for the manufacture of brick, will also make good tile; the proportions of sand and clay must be determined by experiment, as what is commonly termed *clay*, contains always a greater or less proportion of sand. Tile machines are manufactured by Pratt & Brothers, of Canandaigua, N. Y., who will furnish with the machine all necessary directions for its use; we do not know their price.]

Time to Sow Timothy Seed.—What is the result of sowing timothy seed in February or March on new loose land, chopped and burnt over the previous fall? Will the cost of seed and sowing be compensated without previous plowing or harrowing when sown upon the snow? A. J. B. *Lebanon, Ind.* [We have sown timothy seed early in autumn; late in autumn so that it did not fully come up till the next spring; and also early in spring; and in all instances it succeeded well. It was always well harrowed in. No harm can result, we think, from sowing on the snow, if the birds do not get the seed; but we should by all means aim to harrow or brush it into the ground the moment the snow disappears; but it would be better to sow and harrow all at the same time early in spring. If the land is tolerably free from weeds, it will give a good crop of grass the same year, provided plenty of seed is sown—say double or triple the usual quantity.]

Books.—I wish to inquire where I may obtain a book that treats on the diseases of horses, cattle and swine. C. G. *Rose Hill, N. Y.* [Allen's Diseases of Domestic Animals, price 75 cents, and Cole's American Veterinarian, price 50 cents, are both good works. Dadd's American Cattle Doctor and Horse Doctor, are larger works, at $1 each. They can all be had of C. M. Saxton & Co., or at this office.]

Sowing Apple Seed.—Please mention the best time for planting pear and apple seed, in order to get stock for budding and grafting. J. W. W. *Gainesville, Ala.* [Sow as early as possible in spring, as the seed sprout at the very commencement of warm weather. We take it for granted that the seed, in good condition, were mixed with sand in autumn, and properly exposed in winter.]

Chestnuts.—Which kind of chestnut is best to cultivate for the *nut*, without regard to shade or ornament, how cultivated, and at what age will it commence bearing? A. B. *Anna, Ill.* [The Spanish Chestnut is much larger than the common, being about the size of a horse-chestnut, and is preferred on this account. It does well in the Middle States, but the nuts do not always ripen well at the north. It wants a *deep* loose soil; and to grow fast when young, the soil must be kept clean and cultivated. We are not able to say what is the average number of years required under good culture to bring it into bearing.]

Coal Tar.—Please to inform me to *what use* coal gas tar is, and can be applied to advantage, and oblige G. D. *Canton, Ill.* [Coal tar is the best of all applications to wood that is exposed to water or water and air alternately. It should be applied warm or hot, and the wood should be as dry as practicable, so as to absorb the tar into its pores. We have applied two good coats to a pine reservoir, exposed to the most rapidly decaying influences of air and water, which would have destroyed it in a year or two, and after a lapse of *eight* years, the wood appeared perfectly sound. Its only objection is its black color, which causes every tool or implement, fence or building to which it is applied, to become very hot in the sun. To those kept in the shade, this objection would not apply. It would doubtless be admirable for boats. Coal tar, mixed with fine gravel, has been used for sloping gravel walks which would otherwise wash badly, and is a complete protection. Mixed with sand, it would form a cement for constructing tanks, ponds, &c., that would be perfectly water tight, and not suffer by freezing.]

The Orange Raspberry.—I would like to know whether Brinkle's Orange Raspberry will, with ordinary treatment, produce as certain and as large, and otherwise as good a crop of fruit, as the Red Antwerp. I do not care to be troubled with more than one or two varieties, and I want those the best, and a plenty of them. M. H. *Leesburg, Va.* [Will our friend Chas. Downing, and any other cultivators on the North River or elsewhere, please give us what information they may possess on the above point. We have not yet had sufficient experience to answer the inquiry.]

Admitting Wool Duty Free.—What do you think of the proposition to admit wool duty free? Will it not strike a death-blow to the large class engaged in wool-growing, and benefit only the manufacturer? Are the few hundred manufacturers of more consequence than the wool-growers? The Hon. Abbot Lawrence said ten years ago, that the success of the grower and manufacturer both, depended on the protection afforded by the tariff. We should like to hear from you on the subject. N. H. N. *Otisco, N. Y.* [That the repeal of the duty on wool, will have an injurious effect upon the interests of the wool-grower, appears to us just as certain as that a reduction in the price of wool—the great object of the repeal—will follow. Suppose, for instance, that a farmer raises 500 lbs. of wool—that he gets 50 cents per lb. for it now, and but 40 cents after the duty is abolished. Any one, with a very small knowledge of figures, can easily tell how much the wool-grower would lose on his 500 or 1,000 lbs.]

Osage Orange.—Will Osage Orange leaves poison cattle or sheep? I wish to know, as I want to hedge in a large spring or drinking place. E. D. [We have never heard of the leaves proving poisonous, and take it for granted that they are not so

Eggs.—Can hen's eggs be transported three or four hundred miles by railway, without destroying their *vitality*, or does a little jolting ruin them for *hatching?* A. B. *Anna, Ill.* [If properly packed, we think they may be thus sent without injury.]

Creole Fowls.—In the American Poulterers's Companion, by C. N. Bement, in his description of the Creole fowl, he mentions another breed under the name of Leghorn fowls, and seems to wish to be understood as if he believed them to be one and the same. By a good deal of inquiry of late, it seems that the public mind is not satisfied on that point. Now I want to know whether they are or are not the same breed. J. M. R. *Butternuts.* [We have referred to Mr. Bement's new book, and can find no mention of the Leghorn fowls. Perhaps some of our correspondents can enlighten J. M. R.]

Chinese Sugar Cane Seed.—In answer to several inquiries, we state that this seed can now be obtained of Emery Brothers of this city, procured by them from Georgia, and known to be genuine. They have also samples of the syrup made from it. In New-York it is for sale by Messrs. J. M. Thorburn & Co., 15 John st., and in Chicago by H. L. Emery & Co.

Hogs.—Last spring I had a sow which I kept in the pen; five or six weeks after having pigs, she got out, and ran about on the ground for a couple of hours; the next morning she was helpless almost, and for two months she appeared to have no use of her hind parts; she would raise up on her fore legs and eat. I could not find out what was the cause of her lameness. I was told by some it was a common thing to sows that had been kept on a plank floor for some time after having pigs, and then allowed to go on the ground. Information is desirable. J. W. L. *Kingwood, N. J.*

Crushing Sugar Cane.—*S. H. C., Norfolk, Ct.* Either of the portable cider mills, which have been figured and described in this paper, would probably answer a very good purpose for grinding and pressing the Chinese sugar cane. Should the anticipations in relation to this cane be in a good degree realized, mills will soon be prepared expressly for grinding it.

Bee Hives.—Mr. Bishop has written an article in The Cultivator, stating his success in the management of the Honey Bee—also saying that he used the Colton hive of his own invention. If he has got a patent for it, I wish he would inform me through the Cultivator where they can be purchased and the price—if not, will he please tell me how they are constructed. G. MC., *Orange Co.*

Brick Making.—A correspondent furnishes the following in answer to an inquiry recently published in this paper:—

Bricks may be made of any earth that is clear of stones, but all will not burn red. In England, bricks are chiefly made of a hazely yellowish colored fatty earth, somewhat reddish, commonly called loam. According to Leibourn, the earth should be dug before winter, and not made into bricks before spring. In general, the earth whereof bricks are made, ought not to be too sandy, which makes them heavy and brittle, nor too fat, which makes them crack in drying. Tempering the earth properly is the all-essential secret. Using too much water makes them brittle; too much sand or ashes, or sandy earth, makes a light brick full of cracks.

Bricks made of good earth, and well tempered, as they become solid and ponderous, so they take a longer time in drying and burning. The well drying of bricks before burning, prevents their cracking and crumbling in burning.

I knew a person who owned a fine bed of clay, and commenced brick making, but his brick came out of the kiln useless. The clay contained too much gravelly limestone. He then made a mill for crushing his clay in a dry state, after which he could manufacture excellent crockery. It is not the richness of the soil, but lack of duly tempering, that causes failure in brick making.

Farm Book.—Please inform me what is the best, latest and most complete Farmer's Book, comprising all the Farm work, from dung-hauling to harvesting, also Dairy making, and other labor, together with its price? G. S. D. *Germantown, Pa.* [The best work, embracing all the subjects you refer to, published in this country, is "The Farmer's Encyclopedia," a large octavo vol. which you can get at the bookstores in Philadelphia—price $4.]

Mowing Machines.—*S. B. S., New Paltz.* You will find a reply to your inquiry, in some remarks on mowing machines, in answer to another correspondent, on page 45 of this number.

Apple Seed.—A correspondent at Louisville, Ky., inquires where he can procure apple seed. We presume he can obtain it of J. M. Thorburn & Co., New-York, but those who have it for sale would do well to advertise it in the Co. Gent.

Multicole Rye.—Can you give any information concerning the Multicole Rye—how it has succeeded with those that have tried it—what kind of soil is best for it—and if profitable, where can seed be obtained. W. M. G. *Cannonsville, N. Y.* [Will some of our readers answer this inquiry?]

Bots in Horses.—A friend of mine says that although the bots cannot be killed by spirits of turpentine, oil, &c., they may be "knocked cold" by strong coffee. Can any of your readers corroborate? C. S. F.

Peas.—Please insert the following questions, for an answer from some of your correspondents: 1. What is the name of the earliest peas, to be grown as green ones in New-York State? 2. Are the black-eyed Marrowfat earlier than the common white Marrowfat—what are the size of the pods, and whether they are as good for culinary purposes as the white Marrowfat? 3. Is there a pea larger than the small early ones, that will follow and come something earlier than the white Marrowfat?

Ditching Plow.—I wish to inquire through your paper, about a ditching plow that I have seen noticed in the Cultivator, I think. Is it efficient and durable? How deep and wide a ditch will it cut? Can it be easily worked by an ordinary span of horses? Where can it be had, and what is the price? An answer to these questions will confer a favor. C. M. R. *Rocky Hill, N J.*

Charcoal.—Is there any demand for pulverized charcoal as a fertilizer of land? It could be prepared here, and sent to New-York city, or any place along the seaboard, with but trifling cost. Is it in use to any extent, and could sales be made of it? And what is it worth? I would like to hear from you on this subject, or from any parties, by letter or otherwise. L. Dederick. *Dranesville, Fairfax Co., Va.*

Indian Millet, &c.—Please to inform me through the Cultivator, where I can obtain the seed of the Indian millet or Dourah corn, and the price, &c. S. H. Gleason. *New-England Village, Mass.* [We do not know where it can be had.]

Reply to J. P.—Your horse is undoubtedly lame from a curb. If you look close on the back side of the leg, just below the hock, near the lower part of the joint, you may find a slight swelling. I have seen horses very lame when the curb was hardly perceptible. A. B. *Bristol, Conn.*

Disease in Calves—As your columns are open for inquiries of an agricultural interest, I would say that there is a distemper prevalent to some considerable extent in this section of country, among spring calves. They are affected with a cough. It does not seem to affect their appetite much, but they pine away, and quite a number have died. They were brought mostly from Delaware county. Will you or some of your numerous correspondents, say what it is, and the remedy. J. B. H. *New Paltz Landing.*

Millet.—Can none of your correspondents give the best mode of cutting and curing Millet for fodder, and whether it would do to rake it with a horse rake? J. S.

Sheep.—Can you tell which is the most profitable breed of sheep to keep here on the Western Reserve, four miles from market—whether Merinos or the coarser wools, such as South Downs, Leicesters or Cotswolds. The wool of Leicesters sold here last spring for 30 cents, and that of Merinos for 45. Sheep weighing one hundred pounds, sold after shearing for from $1.37½ to $1.50. J. S. *Portage Co. O.*

Notes for the Month.

To Our Readers.—Including notes and short communications, we present this month in the neighborhood of *One Hundred Original Articles*, editorial and contributed, comprising a range of subjects and an amount of valuable and interesting reading contained in no monthly of equal or double its price, so far as we know. Is not this number richly worth *Three or Four Cents?*

It is not too late yet to commence the formation of Clubs. We can always supply the back numbers of the volume—the Club can be divided among as many different Post Offices as need be—the Prizes we offer are not awarded until April 10th. Those who compete for these have still the best part of their time before them—we hope they will improve it.

At the cheap price for which the Cultivator is now offered in connection with the Register (ten copies of each for $5) we are inclined to wonder that more of our friends do not take hold of the matter earnestly, and canvass whole neighborhoods until every man has had the opportunity of subscribing. That another Agricultural paper is subscribed for in any household, is no excuse for passing the Cultivator by, as it is too cheap to admit the possibility of any loss from its perusal.

The Specific and other Premiums we offer are intended rather as testimonials of our indebtedness for such efforts than as remuneration for them. In order that the advantages of Clubbing may be felt by *every subscriber*, we give the Register, and receive for it and the Cultivator so small a margin above the actual cost of their production, that it is out of our power in addition to reward our Agents, except to the extent already mentioned. Hence we earnestly ask the assistance of every reader in behalf of those who voluntarily undergo the trouble and expense incident to collecting and forwarding subscriptions—let each subscriber aid the Agent at his Post Office by picking up the names of three or four of his neighbors and handling them over to be forwarded, and he he will confer a benefit upon his own vicinage, and put it in our power still further to increase the attractions of his paper. A very little effort on the part of each —and now is just the time to make it—will thus suffice to produce a very considerable result. We shall be pleased to forward any desired number of copies as Specimens, and to supply a copy of the Register to those who do not already possess it, for use in obtaining subscriptions.

☞ See Terms, Premiums, &c., on another page.

The Register for 1857.—We trust those of our readers who receive the Register as a gift, will not be thereby led to underrate its value. The demand for it this year has been such as to prove most amply that thousands consider it fully worth the retail price of Twenty-five Cents. And the notices with which our cotemporaries have kindly favored it, have been unanimously couched in terms of the highest commendation. We are happy to say that it promises to attain an unprecedented circulation.

Where Clubs for our papers are raised with difficulty on account of the pre-occupation of the field or from any other reason, a dozen or two of the Register might be sold with very little difficulty. Containing *One Hundred and Forty-two* Illustrations, it makes a handsome and attractive book for those least in the habit of consulting Agricultural works. We send twelve copies post-paid for $2—five copies post-paid for $1—one copy post-paid for Twenty-five Cents, or neatly bound in muslin for Fifty Cents. The nos. for 1855 and 1856 are also for sale at the same price.

Perhaps Witty, but not True.—

> "Agricultural editors and professors, in the enjoyment of salaries, are almost the only men who think farming profitable."

The above is quoted from an essay published in the Transactions of one of the County Ag. Societies of Massachusetts. It is as discreditable to the taste of the writer, as it is without foundation in fact. The profits to be derived from any industrial pursuit, depend in a great degree upon the energy and good management of those engaged in it. That farming is an exception to the universal rule in all other business—that it can be made remunerative without the care, economy and skill requisite elsewhere, no one pretends. We have yet to learn an instance, moreover, when it has been thus properly carried on for a course of years, in which an ample and generous reward has not been returned for all the labor and expense bestowed. And what but farming has transformed the whole face of this broad land from a wilderness to fruitful fields? What, if not farming, has fed, and clothed, and schooled the masses of our people,—constructed our academies, colleges, churches, and public buildings,—yes, and built up the greatness of our cities, by supplying them with fresh blood, and brains educated by *its* profits and unweakened by *their* cares and dissipations? Agriculture is the immediate sire of Commerce, and the wealth of the merchant finds its first sources in the wealth of the farmer. It is quite time such sneering assertions were discarded. Can the writer of the above,—can any reader of this paragraph—point to a county or town which does not number more or less of those who *have* made farming sufficiently profitable for every legitimate human wish? Farmers should respect themselves, and honor their pursuit; and those who are honestly and earnestly endeavoring to aid them in rendering it still more productive, and its followers still more worthy of its high position, should be recognized as beyond the aim of so weak an attempt at ridicule.

Credit.—The *Canadian Agriculturist* shows its appreciation of the contents of our Illustrated Annual Register for 1857, by filling seven of its pages with extracts from it—one-half of which only are credited. The articles headed "Prevention better than Cure," and "Presence of Mind," were both written for the Register, and are certainly worth crediting. All articles copied from the Register should be credited as requested on the back of the title-page, to "Tucker's Rural Register.

The *Ontario Republican Times* also does us the injustice to copy at length from the Register, the very valuable article on "Doctoring Sick Animals," without any acknowledgment of the source from whence it was derived.

Washing Machine.—A lady in Dutchess county wishes to know where she can get one of "Clement & Willie's Washing Machines," which were described in this paper some time since. She saw one in Columbia county some time since, and would be glad to procure one, if some one will give notice through the Co. Gent. where it can be had.

Frey's Adjustable Wheel Plow.—We published a description of this plow some time since. A correspondent, writing from St. Louis, where we believe the plow is made, says—"The introduction of Frey's new plow, will, in my opinion, constitute an era in the history of that important implement."

Chinese Sugar Cane, its History, Culture, &c. —John P. Jewett & Co., Boston, have issued a handsome 25 cent pamphlet, under this title, by J. F. C. Hyde of Newton, Mass., which we presume will be sent to all applicants who remit its price in postage stamps.

Notes to Correspondents.—It will be little extra trouble for those who send us subscriptions, to add notes, either in regard to the transactions of State, county, town or club organizations, or with reference to the crops, weather, sales of stock, or any other such matters that may take place in their vicinity,—and we shall always be very glad to receive them.

It will be a convenience to us if any items of this or other sort for publication are written on a separate piece of paper from the business correspondence.

It would save both publishers and subscribers much trouble if the latter were *always* careful to date their letters *with the name of the P. O.* to which their papers are sent, accompanied by that of the State in which it is situated.

For a sum of any considerable amount, please procure a Draft on New-York, *deducting the difference in exchange*. It is well to register letters containing remittances,—to obtain a certificate of their being sent from the P. M., or at least to note down the date on which they are mailed. This last is very important if we ever afterwards have errors or mis carriages to trace out.

Finally, as this is the season of leisure, has the past year seen no result obtained, difficulty solved or experience, which you can communicate to your brother Farmers? "Every little helps." Add your mite!

☞ We regret to see the announcement of the death of Henry J. Canfield, well known for many years as a correspondent of our own and other agricultural papers, and the author of a popular book on sheep. He died of consumption at his residence in Canfield, Mahoning Co., O., on the 27th of Nov. last, aged 69 years.

Cattle Sales.—We understand that George Butts, Esq., of Manlius, has recently purchased a pair of young Short-Horns of E. Marks, Esq., of Camillus, as a nucleus for another Short-Horn herd. The animals bought, were the bull calf "Young Symmetry," and the yearling heifer "Olivia."

New-York Agricultural College.—We understand that at a meeting of the Trustees held at Ovid, Thursday, Dec. 18th, the Executive Committee reported their examination as to the title of the property proposed to be purchased, and the Trustees directed the purchase to be completed on the perfection of the title.

The President was directed to issue an offer to architects for plans and specifications for the buildings—$250 to be paid for the plan approved, and $100 for second best.

The Executive Committee were authorised to make contracts for materials, should it be deemed advantageous to do so during the winter.

The main building will be about 350 by 50 feet, and four stories high—wings to be added when required hereafter.

Potatoes.—I planted 10 potatoes, in 10 hills—variety Western Reds, along side of a patch of round Pinkeyes—all planted the same day and had the same culture, and all dug the same day. Now for the yield: Western Reds yielded one bushel, one peck, good measure, from the 10 hills; weight 74 lbs. Pinkeyes, 10 hills, 28 qts.; weight 47½ lbs.

A Word About Corn.—On a small piece, less than half an acre of meadow land, well manured and well tilled, planted three and a half feet each way, worked with cultivator and hoed twice, I picked in two instances a bushel of ears from twenty-eight hills. Variety, eight rowed, a mixture of yellow and white. A Subscriber. *Hawleyville, Ct.*

Farming in Delaware County.—Under this head a correspondent, (G. P., Scotch Mountain,) furnishes us, to show our young men that there is no need to go west for the want of land, with the history of a poor Scotch weaver who came to this country seven or eight years since, and purchased on credit 100 acres of land in the town of Meredith, for between $500 and $600. When he went on to this land, it had not five acres of clearing on it, with no buildings but a small log-house, and not a wall or fence. The farmer, with only a son of 18 years to aid, and without a dollar in money, went to work, and now at the close of seven years he *owns* his farm, and has it well fenced with stone wall and oak and ash rails—they have cleared all the land they desire cleared, and have the place well stocked with a dairy of cows and young cattle—their buildings consist of a comfortable dwelling, a large barn, and cow stable. They have a good yoke of oxen, span of horses, wagons, implements, &c.; and all this made from the soil in seven years. Our correspondent thus concludes—"Now let me say to those who are bent on going west, because there is no chance for them to make anything here—that I know of no reason why by patience and perseverance they may not get along as *well* as this family has; and if they *can*, they might like them be contented."

The Dairy.—Franklin county, Vt., is one of the best dairy counties in the United States. It appears from a statement furnished to the St. Albans Messenger, by Mr. P. G. Stone, the freight agent at that place, that there was sent to market from that station alone, during the eight months ending Dec. 1, 1,888,793 lbs. of cheese, and 1,208,614 lbs. of butter—which at the rate of 20 cents per lb for butter and 8½ cents for cheese, amount to the handsome sum of $480,490.79.

The Cultivator—A Choked Ox Saved.—I commenced taking The Cultivator in 1841. I have 15 volumes bound, and I would not take five times the cost of them, and be deprived of their use. I consider it the best agricultural paper I know of, and I have taken many others. If any of my stock is sick, or anything the matter with them, I go to my Cultivators to see what to do for them. A few years ago I had a valuable ox choked with an apple; he was down, and appeared as though he could not live long. I ran to the Cultivator, and it told me to see if I could feel it in the swallow, and if I could, try to push it up or down. I did, and pushed it down, and the ox got well immediately. P. Mitchell. *Rockville, Ind.*

Imported Swine.—Mr. C. S. Wainwright of Rhinebeck, received by the Baltic, a fine Essex boar pig, selected from a pen of five to which was awarded the first prize at the recent Birmingham show.

Excelsior Railway Horse Powers, Threshers and Separators—Kell's Patent.

THESE justly celebrated machines are being sold in every part of this country, in Australia, Sandwich Islands, &c., and are giving universal satisfaction. They have taken premiums over all other machines of a similar kind at the several State and County fairs where they have been exhibited; and in neighborhoods where they are well known, farmers will not use any other machines. We have large orders for these machines to go south at the opening of navigation, and farmers at a distance wishing these machines would do well to give us their orders early, to be sure of getting them. Orders punctually attended to.

RICH'D H. PEASE,
Jan. 15—w10tm2t 369 & 371 Broadway, Albany, N. Y.

HAY PRESSES.

DEDERICK'S Celebrated PARALLEL LEVER Portable and Stationary HAY PRESSES, patented May 16th and June 6th, 1854—which (at about the same cost of transportation as a Railroad Horse Power and Thresher,) are now being forwarded to all parts of the country, and are in every case giving the most decided satisfaction; which (with two men and a horse) are warranted to bale from six to nine tons of hay per day, according to the No. or size of the press—and which are sold for from $100 to $175. For circulars, with full explanatory engravings, and numerous first class references, apply personally or by mail to WILLIAM DEERING & CO.,
Manufacturers, Albany, N. Y.
Dec. 11—weow&mtf

FOR SCHOOL EXHIBITIONS.

THE EXHIBITION SPEAKER & GYMNASTIC Book, containing Plays, Farces, Tragedies, Tableaux, Dialogues and Single Pieces, in Prose and Verse—Senatorial, Humorous, Comic and Miscellaneous. In the Plays, Farces, Tragedies, &c., the action is written out, so that teachers and scholars have no difficulty in performing them on the Rostrum.

Remit 87 cents in stamps, and you will get the book free of postage. Address

D. M. DEWEY, Rochester, N. Y.

☞ Every teacher should have the book at once.

Jan. 15—w1t—m1t.

BERKSHIRE PIGS.

TWO BERKSHIRE BOARS, between six and seven months old—fit for use—fine and very handsome and large.

THREE PAIRS, between three and four months old—very good.

THREE PAIRS, about two months old.

ONE BOAR, from Lewis G. Morris—two years old—very good, handsome and large.

All the above are from a boar of Lewis G. Morris, and from choice sows, and the best lot of pigs I have ever seen, or as good at least, and in very fine condition.

EDWARD WAIT,
Feb. 1—m1t. Montgomery, Orange Co., N. Y.

NEW CHINESE SUGAR CANE.

SEEDS of this much sought for and invaluable plant, in packages of 12¼ and 25 cents each—(by mail prepaid 19 and 34 cents,) for sale by WM. THORBURN,
Seedsman and Florist, 492 Broadway, Albany, N. Y.
Jan. 22—w4t.m2t.

Bement's Poulterer's Companion.

AMONG all the books heretofore published on the subject of Poultry, none, we venture to say, equals this for variety, embellishments, (having 120 on wood and stone,) and useful information. The volume has been got up in the best style, and no expense spared in the preparation, embellishments, etc., by the publishers to render it THE best and most reliable work of the kind ever published in this country. A fresh supply of this very useful and attractive book, with colored plates, just received and for sale by WM. THORBURN, Seedsman and
Florist, 492 Broadway, Albany, N. Y.

Price $2.50. Those remitting the price per mail will have a copy sent with postage paid. Jan. 22—w2tm1t.

TO FARMERS AND GARDENERS.

THE SUBSCRIBERS OFFER FOR SALE 40,000 barrels of their

NEW AND IMPROVED POUDRETTE,

Manufactured from the night-soil of New-York city, in lots to suit purchasers. This article (greatly improved within the last two years) has been in the market for 18 years, and still defies competition, as a manure for Corn and Garden Vegetables, being CHEAPER, MORE POWERFUL THAN ANY OTHER, and at the same time FREE FROM DISAGREEABLE ODOR. Two barrels ($3 worth) will manure an acre of corn in the hill, will save two-thirds in labor, will cause it to come up quicker, to grow faster, ripen earlier, and will bring a larger crop on poor ground than any other fertilizer and is also a preventive of the cut worm; also it does not injure the seed to be put in contact with it.

The L. M. Co. point to their long-standing reputation, and the large capital ($100,000) invested in their business, as a guarantee that the article they make shall always be of such quality as to command a ready sale.

Price, delivered in the city free of charge and other expense:

One barrel,	$2.00
Two barrels,	3.50
Five barrels,	8.00
Six barrels,	9.50

And at the rate of $1.50 per bbl. for any quantity over six barrels.

☞ A pamphlet, containing every information, will be sent (FREE) to any one applying for the same. Our address is THE LODI MANUFACTURING CO.,
Jan. 15—wcow8tm4t Office, 60 Cortlandt-st., New-York.

Bone Dust,

WARRANTED PURE. For sale by
A. LONGETT,
Jan. 1—m2t 34 Cliff Street, New-York.

FARMS FOR SALE

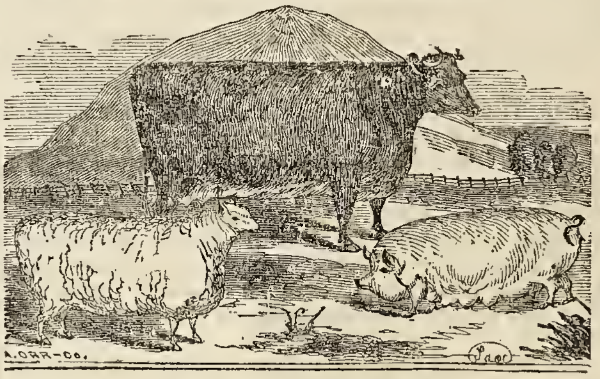
In the Township o Pokagon, Cass County, Mich.

NO. 1 CONTAINS 160 ACRES, (less by 2 acres sold with a saw-mill)—half prairie and half timbered soil. There is about 130 cleared, and 15 acres more may be cleared at an expense of less than $5 per acre. The soil is of as good quality as any in Michigan, well and conveniently watered—a good two-story frame house, a barn 50 by 30, a hay-barn 50 by 18, and sheds attached—three stables for cows and horses—all mostly new, and another barn mostly finished for hay and cattle, 48 by 16—together with corn cribs, hog pens, and mostly every convenience for carrying on a large grazing farm. There is 8 acres of orchard and garden, containing every variety of fruit suited to the climate, and selected with a view to very early and long keeping varieties, though fall varieties are not wanting. Also a small nursery of several thousand trees. There is about 25 acres of wheat sowed last fall. This farm lies about one-fourth of a mile from the village of Summerville, where there is a new brick schoolhouse, a church, grist and saw mills,—7 miles from the commercial port of Niles, and 7 miles from the thriving village of Dowagiag, and 1 mile from Pokagon Side Track M. C. R. R.

No. 2 lies about 1 mile from the above, and consists of about 229 acres, mostly heavy timbered land, and is in the course of inclosure. This will make an excellent grass farm for summer pasture, and in connection with No. 1 will easily maintain 100 head of cattle, besides horses, sheep and swine, as soon as enclosed. It is well watered with a lake on one end and Dowagiag creek on the other. The timber, when cut and delivered at the Side Track, will three times pay for the land.

My stock consists of six head of horses, about 100 sheep, French and Spanish, (thirty choice bucks in the number,) a few pure bred Leicesters, Durhams and grades, Suffolks and grades, Mowers and Reapers, Horse Rakes, and most every implement for carrying on the farm.

As I am anxious to sell, I will take $10,000 from any person who will buy me entirely out. The half of the purchase money may remain on mortgage on the premises. Truthful information will be given on addressing the subscriber, JOHN M. McALLESTER.
Feb. 1—1t. Summerville, Mich.



E. MARKS,

BREEDER OF

Short-Horn Cattle, Long-Wool Sheep & Suffolk Pigs,

CAMILLUS, ONONDAGA CO., N. Y.
Jan. 1—w&m3m

NOTICE.

PERUVIAN GUANO.—I am now prepared to receive orders for Peruvian Guano, Government Brand, No. 1, direct from the Peruvian Agent, at $54.60 per ton of 2,000 lbs. for all quantities that may be ordered and paid for before the first day of March, purchasers having the privilege of the Guano being shipped during the month of March without expense of storage. When taken in lots of five tons, price $61 for 2,240 lbs. A. LONGETT,
Jan. 15—w4tm1t 34 Cliff-street, New-York.

Columbian Guano,

IMPORTED by the Philadelphia Guano Co.
A. LONGETT, Agent.
Jan. 1—m2t 34 Cliff-st., (corner of Fulton,) New-York

Ichaboe Guano.

550 TONS, to arrive by Bark Henry Ellis. For sale in quantities to suit purchasers. A. LONGETT,
Jan. 15—w2tm1t 34 Cliff-street, New-York.

STICK TO THE FARM!

YOUNG FARMERS, who are about to "learn trades," or "study doctoring" or "law," should first learn how noble is the good old Farmer's profession, when properly understood and practiced.

LEARN AGRICULTURE AS A SCIENCE, if you would derive from it both pleasure and profit.

THE BEST BOOKS IN THE WORLD to teach the American Farmer this, are

Nash's Progressive Farmer,	$ 60
Norton's Elements of Agriculture,	60
Allen's American Farm Book,	1.00
Johnston's Agricultural Chemistry,	1.25

We will send them by mail, post-paid, on receipt of price.

C. M. SAXTON & CO.,
Agricultural Book Publishers,
Jan. 8—weow2tm1t 140 Fulton-st., New-York.

For Sale,

DURHAM YEARLING BULLS AND HEIFERS—also Calves and LEICESTER SHEEP.

RALPH WADE.
Jan. 1, 1857—m6t Cobourg, C. W.

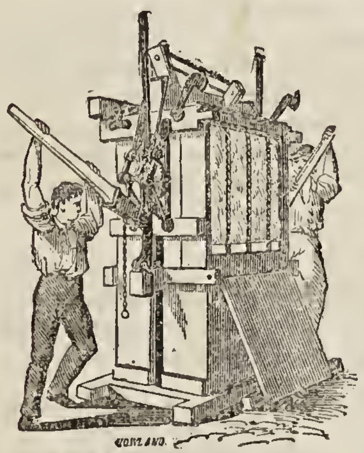
Improved Short-Horns for Sale.

THE Herd of the subscriber being too large for the size of his farm, he wishes to dispose of four very superior cows, all got by imported bulls, and five heifer calves got by imported Bates' bull Lord Ducie (13.181) out of some of his best cows. Also roan bull calf Beaufort got by Lord Ducie (13.181) out of Daisy 7th by Duke, 444 A. H. B., &c , &c. The cows for sale are very superior milkers, as are also the dams of the calves. Direct DR. HERMAN WENDELL,
Oct. 30—w&mtf Albany, N. Y.

PURE BRED STOCK

FOR SALE—Thorough Bred Durham Cattle, Pure Bred Spanish Sheep, French Sheep, Suffolk Pigs and Essex Pigs. Apply to J. S. GOE, Tippecanoe, 4½ miles east of Brownsville, Fayette Co., Pa. Jan. 1—w&m1y*

Ingersoll's Premium Portable Hay Press.



THIS Press combines greater power and portability, requires less labor, occupies less space, and costs less money than any other machine for baling hay ever offered to the public.

It is equally convenient for pressing cotton, hemp, hops, broom corn, rags, husks, &c. Samples may be seen at our warehouse, and circulars with cuts and full descriptions will be furnished upon application by letter or otherwise to

FAIRBANKS & CO.,
Scale Manufacturers, No. 189 Broadway, New-York.
Dec. 18—w4tm3t

The Horse, Most Noble Animal.

THAT indefatiguable laborer in behalf of true Veterinary Science, DR. GEORGE H. DADD, has in press to be published by us during the winter, the most superb work on the Horse ever published in the world, entitled

The Anatomy and Physiology of the Horse.

In one large octavo vol. of 300 pages. Illustrated with 20 superb Anatomical Plates of the Horse, from a great French work.

Price with colored plates,	$4
do. uncolored do.	2

Orders for this elegant and valuable work in advance of publication, are solicited by the Publishers.

Also, just published, the Eleventh Thousand of

The Modern Horse Doctor, by Dr. George. H. Dadd.

Undoubtedly the best work ever issued from the American press on THE CAUSES, NATURE AND TREATMENT OF DISEASES AND LAMENESS IN HORSES. Price $1. Every man who owns a Horse should own this book.

JOHN P. JEWETT & CO., Publishers.
Oct. 30—w&m4t 117 Washington street, Boston.

Peruvian Guano,

GOVERNMENT Brand and Weight. For sale by
A. LONGETT,
Jan. 1—m2t 34 Cliff-st., (corner of Fulton,) New-York.

NO. 1 PERUVIAN GUANO,

AT THE lowest market price.
Superphosphate of Lime,
Poudrette, manufactured by the Lodi Manufacturing Co ,
Plaster for Land purposes,
Charcoal Dust for Land purposes,
Bone Dust, Sawings, Turnings and Ground Bone,
Can now be obtained in large or small quantities at the

North River Agricultural Warehouse,

GRIFFING BROTHER & CO.,
Feb. 14—w&mtf 60 Cortlandt-St., New-York.

☞ EMPLOYMENT FOR THE WINTER. ☜

PLEASE TO READ THIS!

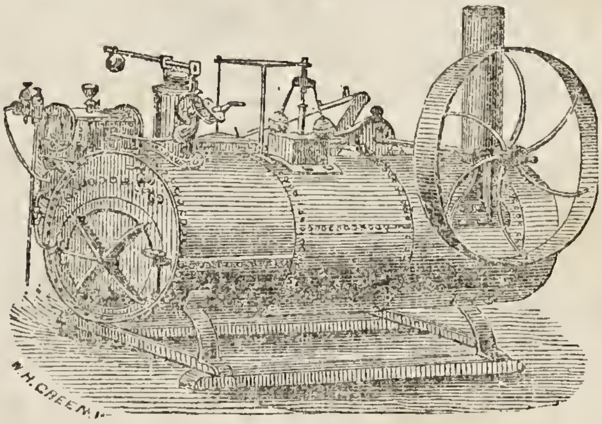
Agents Wanted!—Extra Inducements for 1857.

ALL PERSONS IN WANT OF EMPLOYMENT will at once receive our Catalogue of Books for the New Year, prepaid, by forwarding us their address. Particular attention is requested to the liberal offers we make to all persons engaging in the sale of our Large Type Quarto PICTORIAL FAMILY BIBLE, with about ONE THOUSAND ENGRAVINGS. Our books are sold only by canvassers, and well-known to be the most saleable.

☞ On the receipt of SIX DOLLARS we will forward, free of all expense to the agent or purchaser, a copy of the **Bible** with a bound **Subscription Book**, carefully boxed; and guarantee its safe delivery and perfect condition, to any central town or village throughout the United States, or any part of Canada, Nova Scotia, and New-Brunswick.

⁂ REGISTER your letters at the Post Office, and your money will come safe. It will cost you five cents on each letter. Use a whole sheet when you enclose bills, and have the letter well and securely sealed.

ROBERT SEARS, Publisher,
Dec. 18—w1tm1t 181 William-st., New-York.



PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

	PRESENT LIST OF PRICES.	*Weight.*
2½ horse power,	$225	1500
3 do	$275	1800
4 do	$340	2000
6 do	$520	3500
8 do	$680	4500
10 do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above.

Jan. 31—wtf—May 22—mtf A. N. WOOD & CO.

Devon Cows,

HEIFERS, and Bull Calves—pure blood—for sale by
Feb. 1—m1y. B. V. FRENCH, Braintree, Mass.

Suffolk Pigs,

OF pure blood, for sale by B. V. FRENCH,
Feb 1—m1y Braintree, Mass.

Contents of this Number.

THE FARM.

Theory of the Application of Stable Manures, by Prof. S. W. JOHNSON, ... 41
Bodily and Mental Laziness, ... 42
Sugar-Producing Plants, ... 43
Foster's Lime Brick, ... 44
Use of Lime on Limestone Soils, by W. BACON, ... 44
The Excelsior Farm Mill, ... 44
Ashes and Bone Dust, ... 45
On the Use of Mowing Machines, ... 45
Management of Cattle Manures, by G. T. HAMMOND, ... 45
Farming on the Prairies, by S. W. SUTHERLAND, ... 46
Comments on ditto, ... 62
Underdraining with Stone. by R. J. B., ... 46
Savage's Boiler for Green-houses, &c., ... 47
Sawing Wood by Horse Power, ... 49
How to Grow Good Potatoes, by C. T. ALVORD, ... 50
Prof. PORTER's Principles of Chemistry, ... 50
Steam Plow in Operation, ... 52
Dioscorea Batatas, by E. L. R., ... 53
Hints for the Year, ... 54
Engines for Farm Purposes, ... 56
Hammon's Hand Seed Planter, ... 56
Great Hay Crop. ... 56
Management of Farm-Yard Manures, by JOHN JOHNSTON, ... 58
Deep and Shallow Plowing, by W., ... 58
A Winter Enterprise, ... 59
On the Culture of Turnips, ... 59
Agricultural Exhibitions, ... 59
Crops, Prices, &c. in Iowa, by HAWK EYE, ... 60
Repulsion of Mice from Potato Fields, by C. E. GOODRICH, ... 61
Profits of Root Crops, by J. WALLACE, ... 61
Good Method of Storing Potatoes and other Roots, ... 63
Practical Farming—Good Crops, by R., ... 64
Agricultural Societies, ... 65
Inquiries and Answers, ... 66
Notes for the Month, ... 68

THE HORTICULTURIST.

The McLaughlin Plum, ... 43
Culture of the Cranberry, by D. L. HALSEY, ... 47
Remedy for the Bark Louse, by T. A. CRAVEN, ... 47
Mr. De Witt's Green-house and Vinery, ... 48
Winter Pruning, ... 49
The Concord Grape, by S. WORDEN, ... 49
Fruit-Grower's Association of Western New-York, ... 57
Winter Management of Fruit Trees, ... 58

THE GRAZIER.

A Colt from a Mule, ... 44
Best Cattle for Slaughtering, ... 49
Good and Bad Management of Cattle, ... 54
A Fact in Regard to Breeding. ... 55
Horses Too Well Fed, by R. M. CONKLIN, ... 55
Winter Management of Cattle, by W. H. SOTHAM, ... 55
Wolf Teeth in Horses, ... 54, 55
Dysentery in Animals. ... 56
Economical Modes of Feeding Horses, ... 60
Cure for Foot Evil, by N. C. DAY, ... 61

DOMESTIC ECONOMY.

Cheap Paints for Fences and Buildings, ... 43
Alum in Candle-Making. by W. B., ... 48
Protecting Dried Fruits, by J. W. L., ... 50
To Cure Beef, Hams and Sausages, ... 61
How Kentucky Bacon is Cured, by I. P. SHELBY, ... 65

THE POULTRY-YARD.

Description of the Spanish Fowl, ... 51
Improvement in Breeding Turkeys, by E. ALLIN, ... 57

THE APIARY.

Mr. QUINBY's Mode of Bee-Keeping, ... 52
Management of Bees in Houses, by S. G. CLARK, ... 63

ILLUSTRATIONS.

The McLaughlin Plum, ... 43
Excelsior Farm Mill, ... 44
Savage's Boiler. ... 47
Mr. DeWitt's Green-house, ... 48
Mill for Sawing Wood, ... 49
Spanish Fowls, ... 51
Calf Husbandry, ... 54
Farm Engine, ... 56
Turkeys, ... 57

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THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES.

VOL. V. ALBANY, MARCH, 1857. No. III.

Our Cattle Shows—Their Aims and Objects.

It is of no use to write a long homily on this matter. Every understanding man engaged in agricultural pursuits well knows the object of instituting Agricultural Societies. After years of labor by many of the most intelligent and progressive minds in our country, the improvement of American agriculture has become a cherished interest with our best husbandmen throughout the greater portion of the United States. Although not the *first* to act, the State of New-York has been, perhaps, the most efficient in its proceedings, and as an institution, the New-York State Agricultural Society probably stands first in the system of its arrangements and the value of its labors, of any other State Society; and with its annual volume of Transactions is a model for the imitation of others.

The present high position of our State Society has been won, not by fortunate adventitious circumstances, but by a long course of earnest, methodical perseverance in an upright course of action, divested of all invidual selfishness, and with an eye only to the public good. It has thus obtained the respect and confidence of the agricultural community, and the approving consideration of those engaged in the more active pursuits of our people, consolidating its strength and extending its usefulness, both at home and abroad. It has become in fact, one of our departments of state—not *constitutionally* so; yet recognised by repeated laws of the Legislature, provided with its permanent offices and depositories. It receives annual appropriations for the printing and the distribution of its documents and official transactions. Thus the New-York State Agricultural Society is a fixed, living institution of the state—and we have a right to designate it, as it is our duty to cherish it, as one of the most important and beneficent of the many institutions which mark our progress in the substantial improvement of our race.

It is true that sinister influences have occasionally sought to throw discord into the councils of our society, but so true has the public pulse beat to the great objects of its work, that they have scarce raised a ripple upon the even course of its proceedings; and never, perhaps, has our society stood so strongly as now in the confidence and affections of the people. The persistent course of holding its exhibitions in different sections of the state, as demanded by the strong voice of their communities, has made the remotest districts acquainted with its objects—while it has dispensed to them its benefits. An equal representation of agricultural products, the mechanic arts, the fine arts, the ingenious and useful, as well as ornamental fabrications of the household—in fact the combined industry of our people in its exhibitions, and which have on all occasions received the countenance of the society, have told with decisive effect upon all branches of our pursuits. Thus it stands—a useful, a happy, beneficent institution of the land.

There are, however, tastes and influences at work, and which have been working for the two or three past years among a branch of our stock growers, to open our County Societies to exhibitions which are fraught with immoral tendencies; and if indulged in, will soon find their way into the State Society itself, and if not checked in the bud, bring upon it disaster and ruin. It is notorious that some of our County Societies are little better than race courses and trotting matches. Circular tracks are made, railed in, seats erected on their outer margins, extra prices paid for their occupation, and race course fashion, they become the resort of the crowd. Whatever other attractions there may be on the ground of legitimate agricultural character, the trotting course is the only thing thought of or talked about. It is *the* attraction, the *object*, in fact, of the occasion, with the societies who indulge in them. Even the modest, well-behaved daughters of our farmers and others, have been induced to enter the lists as riders, to exhibit their own agility and the best paces of the horses, for the delectation of the jockies and the applause of the multitude, putting off, for the time, the apparent consciousness that a self-appreciating diffidence to public display is the chiefest charm of their sex. What shrinking, modest female but must feel herself abashed after thus exposing herself to the applause, the shouts, or mayhap the jeers and ribaldry of a profane and thoughtless crowd? God forbid that American females, the daughters of our farmers, should thus pander to a depraved taste and a vicious appetite! The speedy downfall of such societies is certain.

Nor can we disguise the fact that there is a disposition on the part of a portion of our community to introduce the driving ring and its practices far beyond its legitimate object in the exhibitions of our State Society. Let us trace this matter from a small beginning, to see by what insidious steps a mere thing of convenience may work its way into a real vice. Owing to the impossibility of moving the horses on exhibition to the satisfaction of the viewing committees, by not having an enclosed ground set apart for that purpose, a small horse ring of about a hundred and fifty feet in diameter, was first constructed at the Society's Annual Show some years ago. This answered the purpose, only that there were so many classes of horses in competition, sufficient time could hardly be given to them all. The next year another horse ring was added of about the same dimensions, and that department was better accommodated than before. So it was the succeeding year. The following year, when the show was held on the grounds of a regular trotting course, it was pretty much all "track;" but so well was the thing governed, that the horse displays were confined to their legitimate objects, and so, we believe, have the society managed to restrict the horse rings to their proper limits up to the past year.

We were not at Watertown during the four days of the State show in October last, but have understood that had the weather been fine, the horse-drivers were quite disposed to have it their own way. A large track was formed, and on the last day of the exhibition it was the chief point of attraction for the mass of attendants. Not that there was disorder, or noise, or vice of any prominent kind; but fast men and fast horses were there, and by the wide opportunity given for their display, the driving course became the absorbing object of attraction, to the visitors. We know that a prevailing passion of the day is the possession of fast horses. Old fashioned "racing" in the Northern States has gone out of date, while roadsters, trotters and pacers have taken their place and are now all the rage. We do not make this a question of *morals* with the Society. So long as it does not pander to vice, it is its duty to aid in promoting the breed of good horses—"fast" though they may be, and liable to be put to improper uses, as it is to encourage a good variety of Indian corn, though it may be made into whiskey. Yet it should guard the displays of such animals to such extent only that the judges and spectators can determine accurately their points, and the value of their *race*—not the superiority of the *trainer*, who, for the time being has brought his individual horse up to the highest point of his mettle. Our blood horses do not course round the ring at the top of their speed; it is not considered necessary thus to show either their style or their action. Neither our "horses of all work," nor our "draft horses," are subjected to extraordinary feats of labor or the moving of loads. They are judged by their symmetry, their size, their docility, and proper training for the labors they are to perform. Why, then, should the fast trotter and his driver monopolize the course and the time with his spider-wheeled buggy, or flying sulky, dashing over the ground like a Jehu, to the admiration of every idler, and the annoyance of those who come to the show for general information and examination?

Our Society is intended for the improvement of agriculture and the industrial arts of the people. It is not solely for the improvement of horses, nor for horse exhibitions. Our neat cattle, and our sheep, are either of them of more value to the farmer than our horses, although they are indispensable to the labors of the farm, and a source of profit in their breeding. Our manufactories of agricultural implements are of vast consequence to the farmer at large, and the improvements and inventions in that line within the last twenty years have been of more importance to the farming interest than a thousand times our "fast" horses, put together. They are all represented at our shows, and should all have equal space, accommodation and opportunity for display, as their necessities demand; and with the countenance heretofore given to them, they will continue in their successful career of progress.

We have not penned these remarks with the slightest intention to cast censure upon our State Society, or a single one of its officers. We are not aware that in a single instance they have pandered to this horse-racing monopoly; on the other hand, we believe they have always opposed it. Of this subject we speak only in the way of precaution; that as it has become a besetting vice of many of the cattle shows both in this and our neighboring States, our managers may set themselves more firmly against it than ever, and place metes and bounds to our aspirants in the "fancy" horse line which shall give them no undue advantage over others, who quite as legitimately, and in our opinion much more usefully, contribute to the admirable exhibitions which have redounded so much to the substantial progress and honor of our State. *

Cultivating Hillside Orchards.

I have a young orchard of sixty apple and peach trees; the ground is too steep to cultivate, as it will wash during heavy rains. The hole for each tree was dug seven feet in diameter, twenty inches deep, and filled up with top soil. How shall I cultivate them?

Where could I procure young plum trees of the varieties described in the Cultivator for 1855, page 19, namely: Madison plum, Schuyler Gage, Wax plum, Howard's Favorite, and Henry Clay? J. P. *Pittsburg, Pa.*

If the hillside is so steep that it *cannot* be cultivated, our correspondent will hardly expect us to tell him how to perform an impossibility. His trees appear to have been uncommonly well set out, and it would be quite a loss, if the ground could not be kept mellow and free from weeds and grass, by hill-side plow or harrow. An annual crop from the ground is of less consequence than the orchard.

In accordance with the very general opinion among careless cultivators, that fruit trees must take the last chance on the farm, although they cost more and will return more, than almost any thing else that the farmer can raise, we often hear the advice to plant orchards on steep hill-sides, or in rocky ground, "*where nothing else will grow.*" Our advice is invariably just the reverse—put the orchard and fruit garden on the very best piece of land that can be had, and where the trees can be easily and constantly cultivated. An orchard on rich, well-tilled ground, will grow at least *ten times* as fast, as on poor neglected ground; so that, if thirty years are required to bring the latter into tolerable bearing condition, *three years* will accomplish the same amount of growth under the best management. If we had a young orchard planted where it could not receive the best tillage, we should immediately remove it to a more favorable position.

We are unable to answer our correspondent's second inquiry.

Autumn Sweet Apples.

Can you tell me the best fall *sweet* apple, for productiveness, general use, and *cider?* I conceive that a *good* apple will make good cider as well as a poor one. I wish to plant a number of trees for cider expressly, and if possible I want them good for something else. C. S. FOSTER. *Leavenworth city, Kansas, Dec.* 8.

The best autumn sweet apples at the east, are *Jersey Sweet*, *Corlie's Sweet*, *Autumnal Swaar*, *Haskell Sweet* and *Pumpkin Sweet*. The two first are perhaps most productive. The Autumnal Swaar the highest flavored. The Haskell is valuable for its rich flavor, large size, and productiveness combined. We have not included the Summer Sweet Paradise, an early autumn sort of fine flavor, as we think it too large and not sufficiently productive for the purposes of our correspondent.

Breeding of Cattle and Sheep.

NECESSITY OF ADAPTING THE VARIOUS BREEDS TO THE CLIMATE AND LOCALITY IN WHICH THEY ARE INTENDED PERMANENTLY TO REMAIN.

MESSRS. EDS.—In your paper of the 11th and 18th Dec., you have given us a few extracts from an article on sheep breeding, written by *Malingie Nouel*, director of the Agricultural School of La Charmoise, France, from which there is much to be learnt. I have, ever since the State Fair, had the intention of giving your readers my opinions upon the necessity of adapting the respective breeds of cattle and sheep to the locality in which they are permanently to remain. My remarks and opinions may possibly clash with those of some of your readers, but I must claim the right to give utterance to honest thoughts and well considered deductions. A superficial visitor, after examining our State Fairs, might possibly think (some do) that the climate and soil of York State is exactly suitable for the full development and reproduction of the large breeds of cattle and sheep yearly imported from England and France. There stand in stalls the "stately Durham" and the "brockle-faced Hereford;" here lounge in roomy pens the long-wooled Leicesters, Lincolns, and Cotswolds; there stands the dark faced Down, moulded in lines of beauty; there, the gummy wooled, ruff necked, French Merino, and further along the hardy Spanish Merino, and the starveling Saxonies. Let us descend into particulars and ask who owns them, and for what purposes are they kept? About one quarter of such stock at a State Fair, is the property of breeders who have to depend on sales for a return of outlay. The bulk of the remainder are owned by gentlemen who keep them from fancy, and a laudable one too, if rightly directed, and some few single animals are owned by farmers who keep them for the purpose of crossing.

CATTLE.—From observation, I consider the Durhams the most unprofitable breed of cattle that can be kept in this State. The expense of breeding and raising Durhams is so great that professional breeders are compelled to charge, to all appearances, enormous prices for their animals. A calf that was sired by a bull who cost $5000 in England, out of a cow with $1000 tucked to her tail, can't, after sucking two cows besides its own dam, out of the necessity of the case, be sold for a song or a snap of a whip. Durhams, either to be converted into beef, or to be enabled to preserve their pristine form, must have in summer when at pasture, a full heavy bite of grass, and in winter, when in the stable, a feed box full of oil cake or Indian meal. Who dare assert that the common farmer, at ordinary beef prices, can procure an adequate return for his outlay in breeding and feeding a Durham ox? The climate is against him in summer; for in part of July, all of August, and part of September, the pastures are short, dry, and husky, and soiling or deterioration is the alternative. In winter he has, comparatively, to feed against time and 45° Fahrenheit at the bulb end!

Of the Herefords in this country, I know but little. Mr. GEO. CLARKE of Otsego Co., owns a large herd. A few years ago, in company with W. RATHBURN of Springfield, I saw some 40 steers in one of Mr. C.'s fields, and fine cattle they were. How old they were, or how they had been kept, or, *the great secret of all*, how *much they had cost*, I have no means of knowing. I can say this much for the Herefords, from observation in England, that they are very quiet good graziers, and almost universally good, kind and free workers. At the evening discussion at Watertown at the State Fair, I listened with much interest to Mr. Geo. Clarke's statement of his experience with them in Otsego Co—how he fed them in winter with straw and bedded them with snow banks—how they stood all this, and came out *good* in the spring—how nice and marly their beef was—and—*it was* profitable to raise and keep them. This may be so, or may not be so. Mr. Clarke is an enthusiastic admirer of this breed of cattle, and from his manner, language and appearance, an honest man and a gentleman, but having no personal acquaintance with him, I cannot vouch for the correctness of his judgment. Mr. CORNING of Albany, also shows some fine Herefords at our State Fairs, and I believe there is another herd of them in one of our southern counties, owned by Mr. SOTHAM.

New-York State is not, and never can be under existing circumstances, a great beef-producing state. For this article we must go to a more congenial clime, with rich pastures and mild winters, such as the latitude of south Ohio, Kentucky and Illinois, where corn can be grown for 20 cents the bushel! Our soil is almost universally adapted for dairying purposes, with the exception of a few tracts which can be profitably employed in raising barley, in Oneida, Madison and Onondaga, and wheat in Monroe, Genesee, Niagara, Seneca and Ontario counties.

Now the breed of cows most profitable for dairying purposes will govern in grazing districts the breed of cattle from which all our local supply of beef will be derived. It is almost universally conceded by all dairymen of sound judgment, that the common, *mis-called* native cow, will on the average give more milk and butter than any other breed. These cows are of good size, larger than the average of Devons, and the prevailing color is light red. Working cattle are in great request in this state, and the best of them are either full blooded Devons or a cross from the Devon bull on the common red cow. This is so in districts where there are no Herefords; but I am ignorant of the progress the Herefords have made in their neighborhoods in this particular. Eventually whatever breed will produce the best working oxen without sacrificing the milking properties of the cow, will be and *must* be the dominant breed of cattle in this state. The Durhams cannot compete—I will spare them by not repeating their bad qualities. The Herefords are poor milkers. Mr. Geo. Clarke tells us his cows gave from six to eight quarts to a milking. The Devons are not heavy milkers, but rich in butter. The Ayrshires are good rich milkers, but too short legged and dumpy for working cattle. Now the first cross from the Devon bull on the common cow will produce the most profitable animal, for if it be a male he will make the first best working ox—and if a female a richer milker, without losing in quantity, than its mother. There is a breed of beef cattle common in New-York market, known as "River Cattle," universally of a red color. I have been informed on competent authority, that this breed of cattle originated from using bulls bred from the pure Devon bull and the common cow, upon the common cow. It is well known to breeders that such a half-bred Devon bull is always larger, and will get larger stock than a pure Devon bull; and if any body doubts it let him "look sharp" at the next State Fair. I believe the late Mr. HURLBUT was the first importer of Devon cattle into the State of Connecticut, from whence sprung this much admired quality of "River Cattle Beef."

By this time the reader will have suspected that I am a "Devon man," in State Fair parlance. I own the "soft impeachment," so far as the grazing and dairying portions of York State are in the question. But don't take the Devon into Kentucky—he won't bear comparison with the Durham or Hereford on a rich *soil* and mild climate, *for there the Durham will certainly out feed him;* in other words, beef there can be more cheaply made upon a Durham frame than a Devon's. *That is my opinion*, "Devon men"—that is all. In York State we can keep Devons, where, as Mr. Clarke said at Watertown, "Durhams will die!" Such breeders as LEWIS G. MORRIS, Mr. THORNE, Col. SHERWOOD, Mr. Rotch, Dr. Wendell and my friend S. P. Chapman and others, need not be alarmed at my remarks. Let them continue to import and breed for sale *pure animals.* The south and great west will need them for years to come. I would warn men of small means, however, against entering the ring as "fancy cattle breeders." There is danger of overstocking it. It may dazzle to bewilder, and fascinate to destroy.

Sheep.—I think more money has been lost in the misapplication of sheep to climate and locality, than from cattle. I have bred pure Leicesters, pure South Downs, imported and bred pure Lincolns, Canada Leicesters, Merinos, and cross-bred sheep of all kinds, for a number of years. I have one of the best arranged sheep barns in York State, and my sheep are fed, watered, ventilated, and bedded as regularly as clockwork. I grow cabbages for the lambs in the fall. and turnips for the ewes in the fall and spring. Cold turnips, when the thermometer is in the region of zero, are death to a sheep, so I cannot feed them in the winter, but in place thereof give them corn, buckwheat and bran. But after all, "I can't come it," as the song says—*I cannot raise as good mutton sheep, either in carcas or wool, as I import.* Devon cattle, Ayrshire cattle, Spanish Merinos, and English hogs, will thrive as well with ordinary keep and care in this climate as their own.

But I defy the man,
Use all the means he can,

to raise a flock of English mutton sheep, and keep them up to the notch they were in at the time of importation. Malingie Nouel says, and says truly—"the chief races of English sheep, formed under certain circumstances, cannot remain what they are, when those circumstances are altered." I was born and raised in Lincolnshire—perhaps the most productive county in England, famed for its rich tracts of fen, wold, marsh and heath lands, and also one of the best breeds of mutton sheep in England. Now on this 25th day of Dec., 1856, where are the sheep in the West Fen Lincolnshire? Out on the turnip fields, with the ground for their beds and the sky for shelter! Where are mine on the banks of the Oneida? In my tight sheep barn, all the doors and ventilators shut down close, the wind blowing like fury, and the thermometer at ⋈ 10 Fah.! Talk of raising mutton sheep here, being a question of raising turnips! I say its a question of raising the thermometer! If any man can raise the thermometer and keep it raised during the winter, I can raise sheep as well as they do in England, for I can and do raise Swedish turnips as well and as cheap as in England.

One of the most noticeable fallings off in Lincoln sheep, is in the wool. My yearlings last spring clipped from 6 to 8 lbs. each, when the same sheep in England would clip from 10 to 14 lbs. each. I can and do raise a very good Lincoln sheep—carcass, weight from 90 to 110 lbs. at one and a half years old. The same sheep in England would dress from 110 to 130 lbs. The Leicesters fall away quite as fast and a little faster than the Lincolns. In fact it is a difficult thing to obtain a pure Leicester in this State; they are being crossed with the Cotswolds, to give them size, legs and ugliness. The South Down, in some parts of this State, deteriorates rapidly. To thrive well, the Down requires a dry soil and a rolling, hilly surface of country; but they are an unprofitable sheep to keep, for the ewes do not clip more than 2 1-2 to 3 lbs. of wool. When well bred, they are beautiful in outline, and their mutton is delicious.

One of the most profitable breeds of sheep to keep, is the Canada Leicester, such as can be purchased in Canada West, in the neighborhood of St. Catharines, at $10 per head. I do not mean the common Canada Racer, one-half hair, the other half, legs. Cross them with a pure Leicester or Lincoln, and you will have a splendid flock of sheep in a few years. They are the best of sucklers, very healthy and long-lived, and will clip about 6 lbs. of wool, and dress from 80 to 120 lbs. when fat. They have been bred in Canada for so long a time as almost to have become indigenous, and have no admixture of Merino blood in them. In fact I never saw a fine-wooled sheep in Canada but once, and he was a half-blooded French Merino ram, which some "live Yankee" had fastened on to a "Kannuck" for a pure-bred French Merino! Jehu! what sinners we are! I had ewe lambs in October from this breed that weighed 100 lbs., live weight.

Malingie Nouel says, "that all the attempts in France to cross in the Merino with the English mutton sheep have failed entirely. This to me is strange. I consider the Spanish, especially the Paulars, to be constitutionally the best adapted *of any sheep I know*, to withstand the climate of York State, *under ordinary care*, and not deteriorate, but rather improve. I am not alone in this opinion. Now if you take some Paulars of good size, and cross them with a pure Leicester ram, two crosses up, and then breed in the second cross, you will have, according to my experience, the most profitable breed of sheep for common farmers that I know of. They will all have "foretops" of wool on the head, the wool thick, medium fine, slightly corrugated in the lock, clip from four to eight pounds, and the mutton much like the Leicester. I have had wethers three years old, dress from 80 to 100 pounds each. Several of my neighbors have small flocks of sheep bred on this cross, and all partake of this character, so there can be no mistake about it. Young sheep-masters ought to remember that twenty-five is the extent in number, that a flock of pure bred English sheep ought to consist of, in this climate.

The French Merinos under ordinary care, cannot be kept up to the imported size in this State—another corroboration of Malingie Nouel's previous observation. The Saxony sheep are in such universal bad odor that I don't intend to say much about them. They are a pitiable apology for a sheep.

If the above meets your approval, I may at some future time send you a "scrawl" on "Practical Sheep Husbandry." John R. Chapman. *Oneida Lake, Madison Co.*

Beet Sugar.

The Editor of the *Iowa State Register*, has written us for information on the manufacture of Beet Sugar, and more particularly for the details of the process for its manufacture. Some fifteen or twenty years ago we made a thorough examination of the whole routine for making beet sugar, and especially of the prospects for its success in this country. The result was so decidedly unfavorable, that we have since given it but little attention; and if any new facts have been developed, indicating better promise, we have not learned them. We should hail with great pleasure, a general and successful experiment, by which the northern or western states could manufacture their own sugar; but from the facts, that the beet must be raised and furnished at about *eight cents per bushel*, in order to make sugar at present prices, without any profit to the manufacturer, (always worth much more for making into beef,) and that the process for converting them to *good* sugar, is complex and very difficult,—we incline to look to some other quarter for success. On the cheap and fertile soils of the west, however, the experiment may promise better. It would occupy many columns of our paper to detail properly the whole process.

* * *

Yates Co. Ag. Society.—At the annual meeting on the 18th Dec., the following officers were chosen for 1857:

President—Gilbert Sherer.
Vice-President—Samuel V. Miller.
Secretary and Treasurer—Wm. S. Judd.
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ENTOMOLOGY.

No. 13—The Prickly Leptostylus—a Worm under the bark of Apple Trees.

A communication to the COUNTRY GENTLEMAN from JAMES M. CLARK of Baraboo, Wisconsin, giving an account of some worms and beetles found in his apple trees, with specimens of the same, has been lying on my hands some time, awaiting leisure to give this subject a careful examination, as I saw the insect was one, of the habits of which nothing has hitherto been known, and the communication sheds important light upon this topic. I am happy to learn that Mr. CLARK found the shape of *the worm* and the burrow which it forms, corresponding so exactly with the account which I gave of the thick-legged Buprestis, (*Chrysobothris femorata.*) in July last, in the Country Gentleman, (vol. viii, p. 27) that he had little difficulty in deciding that it was that insect. Whilst *the beetles* which he found issuing from the same trees, though similar to the Buprestis beetle in having short thick legs, a rough unequal body, &c., were still so different in several other respects from the description which I gave, that he did not think they could be of the same species. He therefore came to the conclusion—a correct one as the specimens show—that the pupæ which he found under the bark, and also the beetles into which these pupæ matured, were a different insect from the larvæ which he met with in the same situation. I am also happy to learn from this communication that the descriptions of our insects and their habits can be made so plain and explicit, that persons like Mr. CLARK, who have never devoted any special attention to this branch of nature's works, are able from merely seeing a worm and its operations, to correctly determine the name of that worm, and thus foreknow the kind of insect into which it will eventually change.

That portion of Mr. CLARK's letter which details the exact coincidence of the worms in his trees, with the Buprestis, it is unnecessary to present to the reader, as he has the information in the article already referred to, and all the space which the crowded columns of the Country Gentleman can afford, is required for an account of the other insect, of which this letter gives us such important and valuable information. Of this insect we gather the following particulars from Mr. CLARK's communication.

The beetle issues from the apple tree between the 20th of August and some period early in September. I have found one of them this day, (Sept. 5th) not yet fully developed. During its pupa state it occupies the broad end of the burrow which it excavates in the sap wood under the bark. It lies with its head upwards or towards the zenith, and its back towards the heart of the tree, with only a thin covering of bark over it, and through which it cuts a circular hole in emerging from the tree. I have not been able, in examining many of these burrows from which I have taken this beetle, to discover any hole reaching into the heart wood. It is issuing from the trees in great numbers about this time, having lain apparently for some time in their burrows, reposing in their pupa state, whilst the larvæ (of the Buprestis) although apparently two years old, and of the largest size, say from three-fourths to seven-eighths of an inch in length, show no signs of changing to pupæ, but are entering the heart wood seemingly for the purpose of passing the winter there.

These beetles have recently become numerous in the apple trees here, and many trees which were supposed to have been destroyed by the last severe winter, have been found to be so badly infested with them as to lead to the belief that the ravages of the worm were the principal agent in their destruction. The beetles issue from the tree usually near the base of the main branches on the south side of the tree—as frequently as otherwise in the forks of the main branches. Its burrows made during the worm state, however, are found in all parts of the stem.

From what Mr. CLARK says we infer that the burrow of this insect is very similar to that of the Buprestis, namely, a long, narrow and very shallow cavity running in a winding or serpentine direction, and widening as the worm has increased in size; this cavity being excavated in the outer surface of the sap-wood immediately under the bark, and filled with a dry powders the castings of the worm; the burrow of the Bupresti, having at its larger end a hole sinking deeper into the heart wood, whilst that of this insect has none. A specimen showing very finely the track of a Buprestis in the Sycamore or button wood, may be seen in the entomological department of the Museum of the State Agricultural Society in Albany.

The insect to which Mr. CLARK alludes in the foregoing account, we find pertains to the group of Long-horned beetles, or the Family CERAMBYCIDÆ of entomologists—the same to which the common apple-tree borer (*Saperda bivittata*) belongs. The insects of this group are generally of a large size and have long narrow bodies, and very long tapering horns or antennæ. Among these insects, however, are a few which differ remarkably from their kindred, in being of a small size, with bodies short and thick. And among these latter are some which differ from all the others of this kind, in having the first joint of their hind feet unusually short, not so long as to equal the two next joints taken together in length. These Dr. Leconte has recently and upon good grounds, formed into a separate genus which he names *Leptostylus*, in allusion we suppose, to the *sharp points* or little prickles which occur one upon each side of the thorax of these insects, rather back of the middle. It is to this genus which Mr. CLARK's insect pertains, and it is a species which has been named by Mr. Say, *aculiferus*, that is, bearing prickles, this insect having, in addition to the sharp points just alluded to, several others jutting up upon its wing covers, like the points of thorns or the awns of thistles. *Leptostylus aculiferus* is thus the scientific name of this insect, and the Prickly Lepto-stylus will be the most appropriate and definite common name by which to designate it.

It was in the year 1824 that Mr. Say named and described this insect, in the Journal of the Philadelphia Academy of Natural Sciences (vol. iii, p. 330.) He states it to be a common species, which he had met with upon the banks of the Mississippi, Missouri, Nebraska and Arkansas rivers. In the month of February, 1831, I met with this same insect, torpid, under the bark of trees in the southern part of Illinois, but I have never found it in the State of New-York, though it very probably occurs here. It was not in apple trees, but in a forest, where I met with it; and it is altogether probable that, like the Buprestis, this insect originally subsisted on the oak or some of the other native trees of this continent, and that now, in consequence of the extensive clearing off of the forests, it is obliged to resort to the orchards for sustenance on which to continue its existence.

The Prickly Leptostylus is about three times as long as wide, its length being thirty-five hundreds of an inch. It is of an ash-gray color, and the wing-covers, behind their middle, are crossed by a white band having a black spot or transverse streak adjoining it on its posterior side. The shanks have a black ring on the middle and a broader one on their tip. The thorax has an elevated line along its middle, and two elevated spots on each side of this, which are scarcely perceptible to the naked eye, but are very distinct when the insect is examined with a pocket microscope. The marks which have now been given will suffice to distinguish this species from all others. Its larva will probably be found to be quite similar in its form, color, &c., to the small young worms of the common apple-tree borer.

Mr. Clark correctly observes, that as this insect attains its perfect state about the first of September, it is highly probable that the eggs for the succeeding generation are laid in the course of that month, and that consequently those alkaline preparations with which it is recommended to wash the bark of apple trees in May or June, to repel the common borer and the Buprestis, will be of no avail against this insect, unless the same operation is repeated the latter part of August. He has therefore resolved to wash his trees twice in the season. We hope to hear from him hereafter, whether he succeeds in this manner or not, in guarding his trees from these pernicious enemies. He states some facts which go to impair our confidence in the utility of alkaline applications as a prophylactic against insects. The trees from which he took these insects have been scraped and washed annually for eight years past; and one tree, a Baldwin ten years old, out of which he took about thirty large sized worms (of the Buprestis), has each year for the last three years, been thoroughly scraped and washed with soap, sulphur and tobacco water in the months of May or June. It would hence appear that a single washing of the bark may be so entirely removed by rains, that it is no effectual safeguard. We would prefer an experiment, made at least upon one or two trees, with soft soap alone rubbed upon the bark, placing in the forks of the larger limbs an extra quantity, and renewing this application if from heavy rains it is feared the first application is mostly washed away. Let the bark be thus tinctured from the middle of May till the close of June, and if the Leptostylus also occurs in the vicinity, repeat this application the last of August. If a worm is ever found under the bark of a tree thus treated, we are anxious to know the fact. The smooth bark of a young tree wants no scraping. As to sulphur, we have yet to learn whether it is in the least degree repulsive to any kind of insect which infests vegetation. From an experiment related in my second Report on Noxious Insects, page 203, it appears that the common apple-tree caterpillar instead of being injured, is actually rendered more healthy and vigorous and comes to maturity much sooner, by having its food impregnated with sulphur.

In concluding his letter Mr. Clark observes, "This beetle is an insidious and dangerous enemy to the apple tree, as during the period when the worm is actively engaged, no external indications exist of his whereabouts, so far as I can discover. I have taken many of full size out of the outer sap-wood, where the bark above looked healthy and fresh, though from the dark color of the castings in the burrow, some of the injury had apparently been done months previously; and I am of the opinion that in most cases the bark over the injured part does not die and become discolored, until affected by the frosts of winter." It certainly is very important that we should be able, in some way, to discover whether such a malignant enemy as this is lurking in the trees. And if no external traces of it can be discerned, it strikes me that the only mode by which it will be possible to detect its presence will be to carefully puncture the bark in different places, with a pin or needle. A little experience will probably enable one in this manner to discover where any cavity exists under the bark, from the readiness with which the point of the instrument will sink to a greater depth there than elsewhere. And of course, wherever one of these worms is found, a sufficient opening should be cut through the bark, to expel the culprit from his retreat. Asa Fitch. *December 30th*, 1856.

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Chautauque County Ag. Society.—Officers for this year:

President—A. S. Moss.
Secretary—L. Morris.
Treasurer—G. C. Rood; and one Vice President in each town.

The correspondent who furnishes the above, says—"We have a club in our place, called the Farmer's and Gardener's Club of Pomfret—A. S. Moss, Prest.; L. Risley, V. Prest., and E. Baker, Sec'y and Treasurer.

Starch from Indian Corn.

In a late Irish paper, it is stated that "an eminent manufacturer in town (Belfast) has recently received from one of his clients in New-York, a sample of starch made from Indian corn. The quality of this article is considered quite equal to the finest wheaten starch yet produced, and its comparative cheapness will, in all likelihood, give it a large popularity with bleachers and other extensive consumers. * * * * In the inland provinces of the United States, Indian corn can be had at the present time at 40 cts. to 48 cts.—1*s.* 8*d.* to 2*s.* British, per bushel, and each bushel of corn will make nearly as large a quantity of excellent starch as the same measure of wheat. The subject altogether is full of interest. To the large bleach-fields in the north of Ireland, the use of this article will prove of great importance in the saving of outlay, and if, as we learn, the Indian corn starch be quite equal to the article produced from wheat, every grade of society will, in some degree, be benefitted by the new discovery."

Indian corn in this country, is the "crop of crops" among our cereals. The crop of 1849, according to the census of 1850, was 592,326,612 bushels. In 1849 more than eleven millions of bushels of Indian corn were consumed in the manufacture of malt and spirituous liquors. Large quantities are annually used in the manufacture of starch, farina, &c. Several years since one manufactory at Oswego, N. Y., worked up 2,000 bushels per week.

Should future and more extended trials of corn starch in Ireland, sustain the high reputation of the writer quoted in this, and the article be allowed to enter into general use, duty free, then, indeed, "every grade of society there will in some degree be benefited by the new discovery." For, doubtless, the starch of only a portion of our surplus corn might entirely supercede the necessity of converting English wheat into starch, and thus both parties be "benefitted."

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Chinese Sugar Cane.

Messrs. Eds.—Seeing so many accounts of experiments with the Chinese sugar cane, I am induced to contribute what little information I have gathered on that subject. A neighbor of mine (Mr. J. S. Huyck,) received a small package of the seed from the Patent Office, which he planted about 3 weeks after he had planted his corn. It grew finely, soon overtopping the corn by the side of which it was planted, and reached ultimately about the height of 11 feet. At the proper time it was cut up, and for the want of a mill to grind with, was run through a machine which the shoemakers use to roll their leather with now-a-days, instead of pounding it out on a lap-stone as formerly. The juice thus obtained was boiled down to the consistence of good molasses, affording 1½ gallons of the syrup from 26 hills, averaging 6 stalks to the hill.

Mr. Huyck is satisfied that if proper care had been used, 2 gallons could have been made. The syrup is of a light straw color, and has a taste half way between maple molasses and honey. I received a package of the seed at the same time, but thought it too late to plant. You will hear from us next fall on this matter. G. W. Durant. *Rensselaerville, N. Y.*

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The Orange Raspberry.

Eds. Country Gentleman—The Orange Raspberry, with same treatment, will produce as good, if not better crop than Red Antwerp, (the North River variety,) and is much better for family use, but not equal to it for market purposes; it being not quite so firm, will not bear carriage so well. Chas. Downing. *Newburgh, N. Y.*

Cabbage, Turnips and other Root Crops.

The quantity per acre of cabbages, turnips, and roots that under favorable circumstances can be grown upon an acre of land, is truly astonishing. The amount and value of green food for farm stock, that can be raised on an acre of ground, we think is not well understood by a large majority of our farmers. It is generally thought that our climate, from its liability to drought (in summer and autumn,) is not so favorable to the production of turnips, root crops, &c., as the more humid climate of England, Scotland and Ireland. This, to some extent may be true; but still we have hundreds of well authenticated statements, showing most clearly that the several kinds of vegetables usually grown for autumn and winter feeding of cows and other farm stock, can generally, by good culture, be profitably grown in most sections of our country. But in order to do this, the due preparation of the ground, the proper season of sowing the seed, and the after-culture, should all be well understood and attended to in due season.

Farmers, it is said, have strong prejudices, and are slow to adopt new systems of culture, and perhaps this may partly account for the little attention that is usually paid by them to the growing of cabbage, turnips, and other root crops for their stock. But all readily admit that the health, thrift and well-being of our horses, sheep and cattle, would be greatly promoted by a regular daily allowance of green succulent food, in connection with the dry forage they are usually kept upon through our long cold winters. And no less true is it, that the quantity and quality of milk, cream and butter of an hord of cows, would be greatly augmented by a good supply of succulent food, such as cabbage, rape, green corn fodder, (or perhaps better, Chinese sugar cane) during the usually dry autumnal months.

In England, Scotland and Ireland, the cultivation of green crops—that is cabbage, rape, turnips, roots, &c., enters very largely into their systems of farming, and the quantity raised is enormous. At the annual winter show of the Royal Dublin Society, holden in Dublin 2d week of Dec., premiums were awarded for the best crops of turnips, wurzels, beets, carrots, parsnips, kohl rabi, cabbages, and various other crops. But here we only give the weight per acre of the above named. It is proper here to say that the English or statute acre contains 4,840 square yards—the Irish acre contains 7,840 square yards.

Swedish turnips, first prize to Dr. Radcliff—40 tons farm-yard manure per acre—produce 65 tons—seed sown last week in May. The second prize awarded for 47 tons per acre—26 tons farm-yard manure per acre—seed sown 3d of June. Premiums for wurzels—three several crops, two of 80 tons each per Irish acre, and for one of fifty-five tons—farm-yard manure only used. Prize for 84 tons sugar beet—48 tons farm-yard manure per acre. Three prizes for carrots, viz: for 36, 35 and 26 tons per acre. White carrots 45 tons 7 cwt.—45 and 33 tons per acre. Parsnips 30 tons. Kohl-rabi —drills 28 inches apart—40 tons manure—sown in May last, 40 tons and 34 tons per acre. Cabbage, two prizes for 80 and 60 tons per acre. It is worthy of note that in all these trials, none other than farm-yard manure was used.

It might not be good policy for American farmers to go so largely into the culture of green crops as is done in the countries above named. One reason is, our winters requiring they should, like potatoes, be stored beyond the reach of frost. This would make it inconvenient storing very large quantities, but almost every farmer could so arrange as to secure a few hundred bushels for winter feeding to his stock. Cabbages and rape may be raised so as to be fed to milch cows from early in July till November; and large quantities can readily be saved for spring use by opening trenches with a plow, and burying them in the trench, "head downward." We could cite from the Reports and Transactions of Agricultural Societies, hundreds of statements proving beyond all cavil, the advantage and profit of growing cabbages, turnips, beets, carrots, parsnips and wurzels, for stock feeding.

We have alluded to this subject at this time, for the purpose of calling the attention of farmers to it at this comparative leisure season of the year. It is a good time to lay their plans, procure seeds, &c., for the coming spring.

Pratt's Ditch Digger.

In answer to an inquiry from Wm. Reddick, Ottwaa, Ill., we may say that we have used this machine, and seen it used, to a considerable extent. The ground must be hard enough for the horses to travel on each side of the ditch, as it is gradually deepened by successive passings. Our experience is that where there are many stones, the machine cannot be used to much advantage, as the work must proceed slowly, with frequent choking of the ditchre, and with a good deal of extra labor of men with picks or crowbars in loosening and removing fast stones. But where the soil is nearly clear, even if otherwise quite hard, it is a great saver of labor. A pair of strong horses will cut about 75 rods of ditch two and a half feet deep in a day, in land nearly clear of stone, whether sand, loam, or even stiff clay. In muck or soft sand it may be made to cut over a hundred rods.

We intended to have given this ditching machine an extensive trial the past autumn, but several unexpected causes prevented. We therefore placed it in the hands of an intelligent farmer, who had had rather more experience with machinery in general, than most farmers. He had no previous instruction in its management. He soon made it go. The conclusion he arrived at, (and he is quite cautious,) was, that on his heavy clay soil, which is nearly free from stone, two very good horses, or four common ones, could easily cut 80 to 100 rods of two and a half feet ditch per day.

It is manufactured by Pratt & Brothers of Canandaigua, N. Y., for $150. We think farmers would find it of great advantage to use it more extensively. We do not think that it requires more skill and experience to work successfully, than the plow would if now first introduced, although the ditcher is much more complex in construction.

The Rhode Island Society for the Encouragement of Domestic Industry, at their meeting in Providence last week, elected the following officers for the ensuing year:

President—Elisha Dyer, Providence.

Vice-Presidents—Elisha R. Potter, Kingston; Oliver Angell, Providence; Robert Allyn, East Greenwich.

Secretary and Treasurer—W. R. Staples, Providence.

Audit and Finance Committee—Henry W. Lothrop, William Viall, of Providence; and Joseph H. Bourn, North Providence.

Standing Committee—Josiah Chapin, Christopher S. Rhodes, Providence; James Eldred, Wickford; Wm. S. Patten, Providence; Obadiah Brown, Manton; George B. Peck, William T. Grinnell, Cyrus B. Manchester, Providence; James F. Simmons, Johnston; Thomas J. Stead, Henry Howard, Providence; Powell H. Carpenter, Narragansett; Oliver Johnson, John A. Taft, Providence: Ansel Holman, Slatersville: Robert S. Burrough, James Y. Smith, Albert S. Gallup, Providence; Rodolphus B. Johnson, Warren; James D'Wolf Perry, Bristol; Christopher T. Keith, John Kingsbury, George F. Wilson, Charles Akerman, Providence; Elisha A. Lawton, Cranston; Daniel Windsor, Johnston; Stephen R. Weeden, North-Providence; Thomas J. Hill, Providence; A. B. Chadsey, Wickford; Charles Perry, Westerly.

The U. S. Ag. Society's Winter Meeting.

[We regret that other engagements prevented our attendance on this occasion, and are indebted to reports in the Washington papers for details, from which the following sketch of the proceedings is derived. Last week we published a brief note in relation to the officers chosen, &c., from despatches received by telegraph.]

The Fifth Annual Meeting of the U. S. Agricultural Society was opened on the 14th inst., at the Smithsonian Institute in Washington, Prest. WILDER calling to order, and announcing the resignation of the Secretary, W. S. KING, of Massachusetts, when Major B. P. POORE of the same State was appointed to fill the post *pro tem.*, and after payment of yearly dues by the members present, Mr. Wilder proceeded to read his Annual Address. He spoke in the highest terms of the Exhibition last Fall at Philadelphia, and mentioned as among its most important features the specimens of syrup exhibited from the Chinese sugar-cane, and of native wines from the vineyards of Ohio, Missouri and California. He recommended the institution of a grand national implement trial during the year, referred to the propositions received from different places for the next Show, and urged the establishment of a State Department of Agriculture, with a cabinet officer at its head.

The Treasurer's report was next read, of which we have no details, but understand that it represented the actual cash receipts of the year from all sources at about $41,000—the disbursements of premiums and expenses about $40,000, and the balance in the hands of the Treasurer—deducting sundry matters still unpaid, and adding previous amounts on hand—$2,500, or thereabouts.

Mr. CALVERT of Maryland, made some remarks in relation to the heavy expenses of the Society's exhibitions, and the extent of the competition at them as compared with that drawn out by the shows of State Societies,—contending that funds should be accumulated for higher purposes, and that a permanent Secretary should be appointed at such a salary as would enable him to devote his undivided attention to the promotion of the objects in view. Mr. C. was followed by others in an animated discussion of the subject.

The application of Lexington, Ky., for the next Fair was withdrawn in favor of Louisville, in the same State, and Messrs. John Jones of Del., Kellogg of Mass., Richardson of N. Y., and Geo. Hartshorne of N. J., the committee to whom the matter was referred, reported the next day in favor of the ground of the South-Western Agricultural and Mechanical Association at that place. Its citizens have raised a guarantee fund of $30,000. A letter from the Hon. Mr. Guthrie, Secretary of Treasury, and the Hon. Humphrey Marshall, M. C., Delegates from Louisville, accompanied the report, which was unanimously adopted. The election of officers for the present year was held on the morning of the second day, the result of which we have already published.

Resolutions were adopted in favor of the purchase of the Mt. Vernon farm and the establishment on it of an Agricultural College by the United States Government, and a committee appointed to confer with the owner in respect to terms, etc. A circular in relation to the collection of Agricultural statistics, with a table in blank annexed, was drawn up by a committee, and ordered transmitted to Governors of States and Territories—asking their co-operation with the general government in procuring the requisite information. GEO. PEABODY was voted an honorary member, and, we believe, requested to represent the society at the shows of similar bodies in England and France. The Committee on the Trial of Implements reported in favor of holding it in conjunction with the Louisville Meeting—exception being made in respect to the test of mowers and reapers, for which provision is recommended at a more appropriate season of the year. Among committees appointed in addition to those already mentioned, was one to memorialize Congress in respect to an Agricultural Department; one to consider the merits and introduction of the Chinese Sugar Cane; one for the discussion of sundry fruits from the Pacific, presented for the purpose by the California State Agricultural Society, and one to inquire into the origin, causes and cure of the prevailing disease among swine, commonly called "Hog Cholera." Addresses were delivered, or papers read, by Prof. WEBSTER of Va., C. L. FLINT of Mass., Prof. HENRY, D. J. BROWNE, and Dr. NEWBERRY of Washington, Prof. NASH of New-York, Mr. ARNY of Kansas, and, in conclusion of the proceedings, by Hon. G. W. P. CUSTIS of Va. Votes of thanks to officers and others, and to the Smithsonian Institute for use of their rooms, were passed.

Among the pleasant incidents of the occasion, are mentioned the presence of President Pierce and several distinguished gentlemen during the proceedings, and the call of Mr. Wilder and a number of the members at the "White House."

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How to Destroy Lice on Calves.

It will often happen, in spite of one's best efforts, that a calf will become lousy; soon he will communicate the vermin to all in the flock, and they will increase with astonishing and alarming rapidity. It is not always an easy matter to rid the youthful bovines of these pests, and many will contract divers other ailments in consequence, which too often prove fatal. Some of the books recommend one remedy and some another—most of which either prove unsatisfactory or troublesome in application. A simple, but invariably effectual remedy is used in this section, which may not be known to the majority of your cattle-breeding readers. It is smoking them with tobacco—one of the very few good purposes which the vile weed may be made to subserve. We use a *pipe* made after this fashion: the *bowl* is a round piece of wood fifteen inches in length by three and a half inches thick, with an inch and a quarter hole, bored through it longitudinally. A hollow mouthpiece should be made to fit into the bowl, and also a pipe somewhat sharpened at the point, to carry off the smoke, each about six inches in length. With the latter snugly fitted into its place, fill up the bowl with the cheapest smoking tobacco, put in a coal of fire at the top, adjust the mouthpiece, and you are prepared to blow destruction to millions of lice. The smoke is easily blown through the creature's hair to the skin; but to facilitate the operation a thick blanket should be thrown over the calf, leaving the head uncovered, when the smoke will search out and destroy every louse. Five to eight minutes smoking will be sufficient. The nits will survive the operation, but a second smoking will do the business for that generation also.

Smoking affects the lice as it does the "human creature"—it kills them off. The same remedy will be found effectual for ridding colts of the nuisance. C. A.
Little Valley, N. Y., Jan. 12, 1857.

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WAYNE CO. AG. SOCIETY.—The Annual Meeting of the Wayne County Agricultural Society was held at Lyons on the 7th. The following officers were chosen for the ensuing year:

President—ERON N. THOMAS, Rose.
Vice-President—WM. D. PERRINE, Lyons.
Treasurer—WM. H SISSON, Lyons.
Secretary—GEO. W. CRAMER, Lyons.
Directors, (full term)—J. W. COLLINS, Sodus; J. M. SERVIS, Savannah. Vacancy—H. GRAHAM, Rose.

Culture of Indian Corn for Fodder.

Messrs. Tucker & Son--Some time since I promised to give my experience in raising green corn, or corn fodder as it is called, for the purpose of soiling stock. Having had good success in the matter for a number of years, I think that I can speak advisedly.

During the past season we planted sixteen bushels of the Southern White Flat, under various circumstances and conditions of land, &c. Without going into the details of this crop, perhaps it would serve the purpose better to state my conclusions

To Subdue a Stiff Sod.—Prepare in the fall, by heavy manuring with compost, and break up with common plow, or what is better with the Michigan. If turned with common plow, harrow well in spring as soon as there may be four or five inches of frost out of the surface. The bottom frost holds the furrows all in their places. Harrow again in May or at planting time, and if about an inch of fine surface is obtained, sow broadcast and harrow in, from two to three bushels per acre, according to the quantity of manure used. Should the Michigan plow be the one that was used to turn the land, the early spring harrowing would be unnecessary.

If it should be difficult to obtain a smooth surface, then plant the field in hills, about two feet apart each way. Mark out with a wheel across the furrows only one way, or leave an uncovered row to drop the next by; from eight to twelve kernels in each hill is the best quantity of seed.

For a Late Crop.—Manure and break up as before, after taking off rather early a crop of hay. Plant in hills without harrowing, by rowing with every second furrow-lap; make a place for the seed with the heel, and let a hand follow with a hoe to cover. I have prepared land for planting at this season, that was so tough and clayey that covering dirt had to be brought from other places, yet the result would be a remarkably fine crop. I seldom pay any attention to a sod crop after planting.

Old Field Crop.—Bring the land to an even surface, make the manure fine, spread it on, and bush it down well—plow once fine and deep—plant in wide drills—one or two hoeings for after culture. Put in seed according to the quantity or quality of manure, from two to four bushels to the acre.

Orchard Crops.—Manure the land as for field crop—sow the seed broadcast, and plow all in together with one horse and light plow.

Preparing a Crop for Winter Use.—Having been successful in harvesting from ten to fifteen tons when dry, annually, I give my conclusions. As the tassels fairly begin to show themselves, cut with bush scythes; after two days spread; in two days more, turn it; in two more days commence pitching together into winrows, after which pitch and cart same as hay. Put on one peck of salt to a ton, at various times while mowing away.

Another method is to cut with corn knives, lay it straight and even over the ground; in two or three days set or stand it up to each side of long poles placed for the purpose; cap over the tops with a few bundles of the same. Half of an ox-load can be put up to a forty-feet pole placed horizontally, according to the hight of the corn. It will cure most admirably, with but very little cost or trouble.

I have practiced planting on the surface for years with good success. Supposing that the seed requires as fine and as soft a bed as the covering may be, therefore the bush-drag is the last implement that is used with a team before planting, for corn, beans, peas, potatoes, &c. A light wheel about three feet diameter, trundled like a wheelbarrow, will do the marking out most expeditiously.

I think that the profits of a fruit cellar were mentioned in a former letter. I will now only say that the same is well packed with as good Baldwins as New-England raises. Four and a half dollars per barrel having been refused, they still remain in first hands
Isaiah Whitney. *Harvard, Mass.*

On the Vitality of Grass Seed.

The question is often asked, and many times by those who are esteemed the wisest and best of farmers—"Is grass seed and clover seed, which is more than one, two, or three years old, just as good as seed only one year old?"

By many it is believed that there is really no difference in seed, whether it is one or four years old; and it would seem that when proper care is exercised in securing such seed, not suffering it to be injured by storms, nor to heat in the mow before it is cleaned from the chaff, it would be good seed, and vegetate well even when it is a few years old. We have always thought, until recently, that old seed was as good as new, and have many times sown clover and timothy seed which was more than a year old, but have noticed almost invariably, that such seed did not seem to "take" well; and, not thinking that the seed was not good, we have attributed such failure to the unfavorable condition of the soil—that it was covered too deep, or not covered at all with earth. But I have always had good success in seeding land, in both fall and winter, when I have used fresh seed. I have observed many times that those farmers who contend that old seed is just as good as new, and who are in the habit of sowing old seed, frequently complain that their grass seed does not seem to take well.

As every farmer should, if possible, raise his own grass seed, we have been accustomed every year to select some of the best portions of our meadow and let it ripen for seed. In 1849 we saved about two acres of timothy grass; and as it yielded several bushels more than we wanted to sow in one season, it was kept in barrels in the granary. The seed sown in 1850 took well. In 1851 we sowed about one bushel of the same kind of seed, and were much surprised to find that but a small portion of the sown ever came up. Not having occasion to use the remainder of the seed, it was kept until the spring of 1855, when we sowed about two bushels of it, and none of it grew. The cause of failure was thought to be the universal dryness of the soil. In the spring of 1856 from one to two bushels more were sown, but none of it vegetated; and in September last about two bushels more were sown after wheat on summer fallow, where the soil was very mellow and moist, and as favorable as a soil could be for seed of any kind, and not one single spire can be found which has sprung from the seed sown at that time.

In a few instances, in years gone by, we have sown turnip seed which was from two to three years old; and from such seed we never obtained many turnips; while from new seed they were almost always apt to stand too thick.

In the spring of 1853, we used carrot seed which was three years old, and not one seed in one hundred vegetated. In the spring of 1855, we used carrot seed two years old; and in some rows of one hundred feet long, there would be but six, eight or ten carrots; and not one-tenth part of the seed in all the rows, ever came up. In the spring of 1856 I sowed a paper of carrot seed, which we have good reason to believe was old seed; and the result was, we did not raise one single carrot.

What the experience of others may be on this subject, I am not able to say; but what I have penned I know to be veritable truth; and, furthermore, I know that the cause of failure was in the seed, and not in the unfavorableness of the soil. And if such should be the result with old seed on my farm, may we not safely conclude that when a failure has been attributed to a poor and barren soil in many instances, the fault was in the seed? We know that grass seed is kept on hand many times by proprietors of agricultural seed stores, until it is several years old; and it is no uncommon thing for country merchants to keep clover and timothy seed from year to year, and sell such for fresh seed; and if my seed should lose its vitality in so short a period of time, it would seem to be the dictate of sound wisdom for every farmer to raise his own seed from year to year; or sow none except that which is known to be the product of the previous season. S. EDWARDS TODD. *Lake Ridge, Tompkins Co.*

Culture of Root Crops.

MESSRS. TUCKER & SON—I send you my method of cultivating root crops, and should it be of benefit to any one I shall be repaid by hearing from them through your paper.

I plow the ground intended for roots, very deeply, either late in the fall or early in the spring, and let it remain so until I get ready to plant. I then harrow it well, and to every acre of ground I put on twenty or more loads of well rotted stable or hog manure, spreading evenly on the ground so that all gets a due portion. I then cross-plow to the depth of ten or twelve inches, and pulverize with the harrow as finely as possible. Next I sow about five barrels hen manure, well pulverized, broadcast, and use a shovel plow in making drills because it gathers all the hen manure to the top of the drills, where my plants get the most good from the manure. I plant on top of drills.

Carrots and Mangel Wurzels I sow from 20th May to 1st June; Purple Top Ruta Baga turnips, 20th June. I found last season, by soaking my seed from 24 to 48 hours, and rolling it in plaster, that it all came up a week or ten days sooner, and consequently they had an even start with the weeds, which is no small item in weeding. As soon as they will do, I thin them—say carrots four inches, mangel wurzels from four to eight inches, and turnips the same distance. I keep the weeds as close down as possible until the plants cover the ground.

The manner of harvesting is easily understood, and each will follow his own way. My carrots I plow out, being more expeditious than the spade.

Amount of seed used—every one may use his own judgment—for carrots two and a half pounds per acre is my rule, and mangel wurzels four pounds, turnips three pounds. The distance between rows from eighteen to twenty inches. The cultivator and hoe are in constant motion to keep down the weeds. J. WALLACE. *Victory, N. Y.*

Cheap Way of Cutting Ditches.

I will say a few words about laying tile, that may be of interest to some of your readers. We have laid one hundred rods in a day, with one team, four men and one boy, and covered them all complete. We plow two furrows with a common plow, as deep as we can; then take a sub-soil plow, with a piece of plank four feet long attached to the mould-board, for the purpose of raising the dirt, and go through twice with this, which will leave a ditch two feet deep, which is as deep as it will answer to lay in a hard soil. After cleaning out the loose soil we have a scoop the shape of the tile, with which we finish the ditch. After laying the tile and covering them with straw, take a one horse plow and plow the soil into the ditch, and finish with a hoe. I think a scraper made like a V, would do the covering faster and better. E. WILSON. *Vernon, N. Y.*

Salt for Crops.

Mr. M. of New Hartford, Ct., sowed *salt* broadcast, upon a potato patch, at the rate of twenty bushels to the acre, and planted it to potatoes, and tilled the same in other respects as usual, the past season. In the fall when he came to dig them, to his surprise he found these potatoes *all sound*, without an exception, and a good yield; while those potatoes which were not salted in the same field, and were in other respects tilled in the same way, *rotted* to a considerable extent.

Thinking it might interest your readers, I propose to report the *result* of using *salt* in raising a crop of onions.

I would state that, for many years last past, my onion crop has proved a failure. My onions have *rotted badly*, grown very *small*, and finally dwindled to nothing; or in common phrase, "they *ran out*."

In the latter part of last May I sowed a piece to onions. The land was a dark mould, clay bottom, or moist soil. The piece was well manured, and about four bushels of *fine salt* sowed broadcast to the acre. The land was then leveled and the seed sowed in drills about one foot apart. The plants were allowed to stand irregularly within an inch to an inch and a half of each other. The weeds were thoroughly expelled during the fore part of the season, and the onion tops finally grew to an *enormous size*.

Some think that if the tops had been forcibly lopped down early in September, the bottoms would have doubled in size. But I thought this measure unnatural, and did not permit it to be done until frost came.

If onions are properly thinned out and well tended, I think it not natural or necessary to force down their tops at all. These onions, while the tops were still very green, were gathered about the first of November, and the yield was about 480 bushels per acre. J. C. C. *New Hartford, Ct.*

Culture of the Sumach.

MESSRS. EDITORS—Will you or some of your correspondents be pleased to furnish through the columns of THE CULTIVATOR, some information respecting the cultivation of the common sumach, (*Rhus glabrum,*) and the mode of its preparation for market.

I would like particularly to learn the manner in which it is most readily propagated, the time it should be cut, the mode of packing it for market, and its usual price.

When it is considered that we import annually between one and two millions of dollars worth of Sicilian Sumach, for the purpose of dyeing and tanning light leather, it would seem that our American farmers might profit by the cultivation of the native shrub.

In many portions of the country, especially on the waste lands of New England, the sumach grows spontaneously in great quantities, and hence the mode of its preparation for market would be of value to the farming community. A SUBSCRIBER. *North Lyme, Conn.*

We shall be glad to hear from any of our readers in answer to the above. We are inclined to think our correspondent has placed the amount of sumach imported altogether too high, as we cannot find the article enumerated in the list of imports for 1855, and hence we infer that the amount is so small that it is included under the head of "non-enumerated articles."

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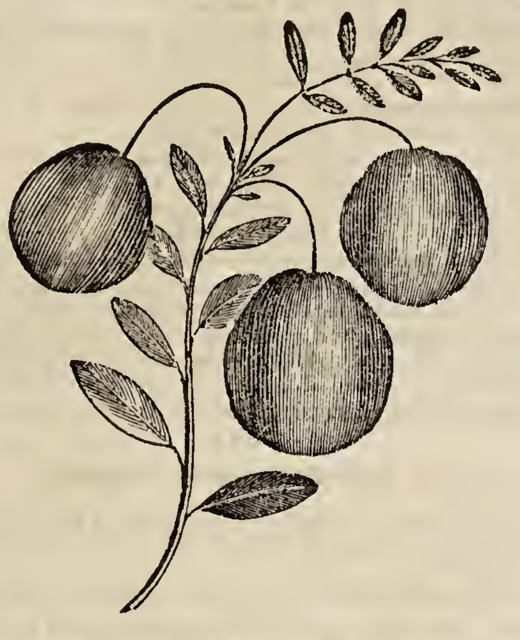
CHINA OR TARTAR SHEEP.—We learn that JOHN HOLMES, Esq. of Ballston, has four of these sheep, purchased from a ship at New-York, last spring.



The Cranberry as an Ornamental Plant.

No plant of its size can equal the cranberry plant in beauty. Its leaves of rich dark green in summer, changed to a reddish brown in winter, remain on the plants through the year. The thread-like stalks stand erect and mat close like moss. They would form a border somewhat resembling box, and would require only an occasional trimming off of the runners to keep them in form for years. From the last of June to the 10th of July they are in blossom, being thickly interspersed with the most beautiful transparent pale pink flowers. The flowers are succeeded as if by magic, with the berries, at first green, but soon changing to a bright crimson scarlet, covering the plants in a profusion unequalled by any other fruit, having produced three bushels of berries to the square rod. The berries will remain on the vines through the year.

I may be enthusiastic, but have never seen any plant that would so soon attract attention as the cranberry plant. When in blossom, its bell-shaped flowers, suspended by a hair-like stem, almost seem the work of some fairy; and then the berries, two, three, and on some varieties five, attached by the same hair-like stem to the parent stalk, itself only the fifth part the size of a straw, excites one's sympathy lest the fruit break the parent stalk, and we at once see the wisdom of their clustering so close together, thereby being enabled to bear their crimson load of berries.

If the nature of the cranberry was fully understood, it would be found in every "Country Gentleman's" yard as well as in field culture. They draw their sustenance from *water*, a small quantity of which is absolutely necessary to sustain the plants in bearing condition. The air always contains sufficient moisture, and pure sand will attract and retain sufficient moisture in the proper form for the cranberry plant in any location. H. L. D. *Side Hill Place.*

Brinckle's Orange Raspberry.

Eds. Co. Gent.—You ask for information in regard to the Orange Raspberry, and I have this advice to tender: If your correspondent wants a fine berry for his own table merely, let him plant Brinckle's Orange. If he wishes to send of his superabundance of fruit into the market, there is no berry yet in cultivation to compare with the *real* Hudson River Antwerp. Cultivators in this region after testing the newer kinds, have settled down to this conclusion, that for beauty, productiveness, and *solid profit*, no raspberry has yet been found equal to the real Antwerp. A. A. Bensel. *Milton, Ulster Co.*

Do You Make a Hot-Bed?

If you do not, and have a garden, if ever so small, you miss a fine opportunity of supplying your table with what ought to be considered necessary delicacies. Necessary because conducive to health, and delicacies because the produce comes in after a long winter diet of stored vegetables, and but too often, indeed, without these blessings to a well ordered household.

It is no excuse to say you cannot afford it, for the outlay is a trifle, and in case of real lack of means the whole may be done, and materials supplied for a few shillings. Let us particularise.

First, then, it has been proved from actual trial that *oiled calico* may be made to answer the place of glass —true, not so well or for use so early, but withal a substitute that may be adopted with good results in its absence.

If this is not enough to draw attention to it by those who read, a pile of figures to show how much the muslin would cost per yard, how many nails and how much material it would take to construct a frame 3 feet by 6 feet, to tack the muslin on, would not assist matters; hence we leave it entirely in the hands of those it is intended to benefit, and proceed to say a few words on another contrivance slightly more costly, but highly advantageous, and once obtained, with care may last for years.

This contrivance is none other than a pit—nothing new you will say, (which is quite true,) and far in advance of all your *hot-bed frames*, because it gives the opportunity of placing the fermenting material away from the action of the cutting March winds.

The most durable, and at the same time the neatest material for the sides of a pit, is no doubt brick, but as this costs money, we will pass it by. and substitute such stone as may be at hand.

There are very few farms but what have stones in abundance scattered about, which would be better out of the way, and best of all if made some good use of. With these, then, we will build our pit. Suppose it to be a little rough; depend upon it the plants you wish to grow will not know it, and will grow just as vigorously as in your wealthy neighbor's, which cost quite a sum of money. Another thing too, when you are at it, give a liberal view to your wants, or you will surely find just about the time your first crops come in, it is not large enough. We shall suppose you will want altogether 12 lights, or some 36 feet length in all, and about seven feet wide. First, then, the soil should be excavated two feet deep all over this space, and at the outsides another foot for the foundation of the walls. Have stone sufficient carted to the spot, and a good lump of lime mortar mixed up for bedding the stone. Carry the back wall 18 inches above the ground, the front six inches, smooth the top and ends by using small stone and plenty of mortar, so that a plate of wood may rest evenly on it. This plate is halved together at the corners, some division rails let in for the sash to rest on, and the pit is made and ready for work, except the sash, which may be ordered at the sash manufacturers. The preparation of manure and the crops they will mature or advance, must form the substance of another article. Edgar Sanders.

Ohio Cup Cake.—Five cups of flour; five eggs; one cup of butter; three cups of sugar; one teaspoonful of salæratus; one cup of sour cream, and one nutmeg.

Sugar Mills.

The recent introduction of the Chinese sugar cane, with the favorable results attending its cultivation in various sections of the country the past season, in connection with the quantity and quality of its saccharine matter, and the present high price of sugar and molasses, has created a very general desire to experiment with the cane the coming season, for the purpose of making sugar and molasses. The attempts at sugar making from this cane, have not yet promised any very favorable results. Perhaps this may have arisen mostly from lack of skill and the requisite knowledge in its manufacture. But in the manufacture of syrup, the results have been so far favorable as to justify those who have had the most experience in this matter in making a heavy outlay in preparing for the business another season. They, doubtless, will provide themselves with expensive and efficient iron mills, and corresponding fixtures, &c. But these are expensive, and at present it would hardly seem advisable for farmers and others at the North to expend large sums in the purchase of mills, boilers, &c., and in the erection of buildings. But yet it may be advisable for farmers in the same neighborhood to "club together" and erect a mill to crush the cane, and procure Russia sheet iron pans for boiling the juice; these pans require but small outlay for bricks and masonry. Good and tolerably efficient "fixings" can be built at a moderate expense, and so constructed as to be readily removed from farm to farm. One or two years experience would decide the "profit or loss" of the experiment.

The crushing mills of Louisiana consist mostly of three iron rollers, from 25 to 28 inches in diameter, and from 4 to 5½ feet long. They are not solid. The thickness of the shell of the rollers made by Leeds & Co., New-Orleans, varies from 2½ to 3 inches, according to size. They are very expensive.

But we will give a sketch of some cheaply constructed mills, that may afford some useful suggestions to our ingenious mechanics, should they be called upon to put up mills.

The sugar cane is cultivated to a limited extent in some portions of Mississippi. By the late census returns, it appears that the crop of 1849 was equal to 388 hogsheads of sugar, and about 18,000 gallons of molasses. Many of the most substantial planters making all the sugar and molasses required for their own use, with some to spare to their neighbors.

The sugar mills, of course, are rude and of small dimensions, consisting, in fact, of little more than the rollers for grinding the cane, which are made of seasoned oak timber, and stand generally in the open air; a cheap shed suffices for a protection of the kettles, which are common iron ones.

Lieut. Herndon, U. S. Navy, in his explorations from Chili on the Pacific, across the Andes to Para, on the Amazon in Brazil, frequently in his journal speaks of the sugar cane and the making of sugar. So also does Lieut. Gibbons in his journal.

Lieut. Herndon visited a plantation near Sarma in Peru, and says:

"Sugar cane is propagated, not from seed, but from the top joints of the old plants. The average height of the cane is about ten feet, though I have seen a stalk of sixteen feet.

"Two men to cut and two to carry, will supply a mill, which consists of *three upright wooden rollers* in a rude wooden frame. The rollers are cogged and placed close to each other. The head of the middle one extends above the frame, and is squared, so as to allow the shipping on it of a long beam, to the end of which an ox is harnessed, which, walking in a circle, gives motion to the rollers. The end of the cane is placed between the rollers and is drawn in and crushed by them; a wooden trough is placed below to catch the juice. Such a mill will yield fifteen hundred pounds of juice in a day. These fifteen hundred pounds of juice will give from two hundred and fifty to three hundred pounds of sugar, which is worth in Sarma twelve and a half cents the pound.

"Sugar cane is the most useful and valuable product of the Montana. The leaves of the cane when green serve for food for cattle; when dry, to make wrappings for the *Chancaca* and sugar. The crushed stalk is used as fuel for the oven. The hogs fatten on the foam at the top of the boiling. From the first boiling is made the chancaca or brown sugar cake, which is eaten after dinner by almost all classes. It is worth six and a quarter cents the pound in Sarma. From one thousand pounds of the juice, boiled ten hours, is made four hundred pounds of chancaca."

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A Few Facts about Farming.

"Agricultural Editors and Professors, in the enjoyment of salaries, are almost the only men who think farming profitable."

Messrs. Editors—The above sentence I take for a text, from which I propose to preach a short matter of fact sermon. I find it in the last No. of the Country Gentleman, page 48, quoted from "an essay published in the Transactions of one of the County Ag. Societies of Mass," accompanied by a very sensible editorial criticism, which I hope may come under the eye of the author of that essay, and be the means of putting a little common sense into his head before he undertakes again to enlighten the community upon the profits of farming.

There is an individual now living, not a thousand miles from the author of that essay, with whom I have been intimately acquainted for nearly the last sixty years, who will bear testimony to the falsity of the paragraph at the head of this article. I knew him when, a lad at the tender age of ten years, he left a home of extreme poverty, to earn his living with a neighboring farmer, and at fourteen, changed his services to another hard and close-fisted farmer, at the suggestion of his poverty-stricken parents, in view of a little pecuniary aid to themselves, for they received $50 in advance, and the son was to receive $100 at the age of twenty-one. But six months before his time expired, the griping hand of necessity so oppressed his parents, that he anticipated $25 of his hard earned freedom patrimony, to purchase a cow for them, thus leaving him just $75, and decent wearing apparel, the fruits of seven years toil, to start in life.

As to opportunities for education, he had but few, except self instruction at the fireside in the long winter evenings, by the light of the old back-log and fore-stick, occasionally improved by the aid of pine knots saved for the occasion, as the old farmer, though abundantly able, was too penurious to afford a candle for a poor servant boy to study or read by. But the boy was studious and fond of reading, and became passably self-taught in the common rudiments of the English branches of those days. He also became fond of rural life, attached to the cultivation of the soil, and unlike the youth of the present day, had no higher aspirations than to become a distinguished and an independent farmer. He had sense enough to know that a man will be likely to succeed best in the business to which he is bred, which he thoroughly understands, and if pursued assiduously it will result in competency. The severe training of his early life gave him habits of industry, of close application, and strict economy, which will go with him to the end. He was trained up in the way he should go, and though old, he will not depart from it. "Young America," and the fast people of the present generation, may call him an "old fogy," but they may thank their stars that there are yet left many of this stamp. Were it not so, the highway of folly and extravagance would become so thronged with its votaries, that a total shipwreck upon the quicksands of destruction would be inevitable.

At the age of twenty-two years this young man paid the funeral charges of his father, and soon after built a small cottage house for his mother, and mainly supported her for seventeen years thereafter, until she too required the last kindly offices rendered to the dead. And this was not all. An indigent and unfortunate sister, of a delicate nervous organization, became, early in life, insane, in consequence of the mental anxiety attendant upon extreme poverty, and he largely contributed to her support in an insane asylum, until within the last three years, when by the goodness of her God she has found that rest, it is hoped, which was denied to her on earth. in a happier and better state of existence.

As my friend began to accumulate means, and his name was current at banks, his kindness of heart and accommodating disposition led him to become endorser for others, and to give credits in the sale of wool and other farm products, so that in the general crash of 1837 he lost largely, and nearly became bankrupt himself. But he never faltered, or put his hand to the plow and looked back. His gratuities and his losses with the interest added, would now be a fortune; and yet he is not without a fortune, ample and sufficient for any country gentleman of moderate desires and respectable standing Here on the banks of the Connecticut, where land is neither cheap nor worthless, his acres number some four hundred; he has eight barns, and fills them all; his flocks and herds graze upon much less than a thousand hills; he has no mortgages to cancel, no notes to pay; he rests under his own vine and fig tree, no one to molest or make him afraid. In the midst of a happy family, he lives upon the fruit of his own industry, conscious that no one has been injured by his gains. Unlike the lawyer, the physician, or the merchant, he is not dependant upon the misfortunes, the whims or caprices of the community around him for support; or like the extravagant, reckless and unprincipled speculator, is he continually racking his brain to contrive ways and means to turn himself, to avoid bankruptcy as long as possible, and be prepared, when it does come, to cheat his creditors, and escape a felon's doom.

Now let me ask the author of my text, has this man found farming profitable—not only pecuniarily, but morally profitable to body and soul, to peace of mind and vigorous health? And this is not an isolated case. Go through our Eastern States and the whole entire west; count the wealth realized by farming, compare the aggregate with that of other pursuits, strike the balance, and see how the account stands.

Agricultural editors and salaried professors are not quite or almost the only ones, that say *farming is profitable.* I know many within my limited circle of acquaintance, men of wealth, who have become so by farming; men of character and position, and who are not ashamed of their occupation.

When we see the sneers and jibes thrown out upon farmers and farming, by the would-be gentleman, it is well to let them pass for what they are worth—they are beneath contempt; but when an agricultural essayist attempts to disparage the calling, he should be noticed, and I was gratified to see the brief notice you gave him in your last number. J. W. C. *Springfield, Vt., Jan.* 16, 1857.

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New Oxfordshire Sheep.—Messrs. Smith of Smithdale, Middlefield, Mass., have recently added to their flock of these superior mutton sheep, twenty-seven fine specimens, selected from the flock of John T. Andrew, Esq., of West Cornwall, Ct.

The best Breeds of Cattle.

Eds. Co. Gent.—In your paper of Jan. 22d, I notice an article relating to raising, feeding, working and milking farm stock—deciding on the merits and demerits of the various breeds in this state, by John R. Chapman of Oneida Lake. That Mr. C. has fallen into some serious errors in his "observations" upon the various breeds, is very evident; and for the purpose of correcting those errors I will note a few of them for the benefit of new beginners in the art of breeding, &c.

1st. *Cattle*—He says—"From observation I consider the Durhams the most unprofitable breed of cattle that can be kept in this state." I wish the readers of the Co. Gent. to notice that it is from "observation" alone—not by a trial of their merits, that he brings his sweeping charges against them, thus driving them from our borders at a flourish of his pen.

Mr. C. has given the "mis-called native cow" her proper name, but neglects to tell us what blood she is bred from; that is a matter of some importance to the young farmer, at least in this state. He is also honest in confessing that the progeny of the Devon bull is increased *in size and value* by crossing on this same mis-called native cow. But why increase their size, and thus approximate nearer the unprofitable Durham?

Mr. C. Says—"Eventually whatever breed will produce the best working oxen, without sacrificing the miking properties of the cow, will be and *must* be the dominant breed of cattle in this state. I will accept that assertion, and then take up sides for the "Durham," or as is more proper the Short-Horn—*denying* that the full blooded Devons are the best for working oxen, in this county, at least, or even the state, except in certain localities. In the county of Oneida, at as early a day as 1818 or '19, was brought in the Short-Horn of that period—(not in his present improved style to be sure,) but none the less a Short-Horn, and diffused very extensively. At a later period, the late Robert Nesbit of this county, brought in a bull, (from Albany I think,)—also the imported Holderness bull, some 25 years ago, was kept in this county, and his progeny disseminated throughout the county, all of which stock, bred to the existing stock of the county, are now called "natives." Mr. H. N. Cary of Marcy, brought Short-Horn stock from near New-York, probably more than 20 years since. Mr. Ira Hitchcock of Vernon, also purchased the first Short-Horns that Mr. Francis Rotch sold, (I think he told me.) I had a half-bred bull in 1839, of the get of Mr. Hitchcock's bull; and in 1842 I purchased Cortez of Mr. Rotch, and of his get very many were kept for bulls, and bred to cows in this county, which shows conclusively that the "mis-called native cow" has a large share of Short-Horn blood in her, which is one of the reasons of her producing a more valuable animal than its sire when bred to a Devon bull. For the Short-Horn blood thus attained, common honesty would demand a credit.

Now some farmers in Oneida county (and a friend from Onondaga county, informs me that they wish to stand by the Oneidas in the trial,) are willing to enter the lists with their grade Short-Horns as working cattle, with the full blood Devons, claiming all the benefits that might arise from the blood of the mis-called native cow where Short-Horn blood clearly existed, whether of 20 years ago or of a later date; or exclude all such and take only such as has been infused within that period.

From my own experience with cattle, of some 30 years standing, I give the *decided preference* to the Short-Horns. Commencing with the old style, I preferred the Devon, but did not like them as I supposed. I then turned to the newer style. In purchasing the bull, got by the Hitchcock bull, he left fine milkers and good workers. I then purchased *Cortez*, as before mentioned, and he did nobly for the stock of this county, his get winning first prizes at our State fair; and from him I bred the most profitable yoke of oxen I ever owned previous to that time; performing from 2½ years old to 6, (or nearly that age) the daily labor of the farm as an ox team; then without any fitting but simply unyoking and driving to the slaughter, giving the butcher 2700 lbs. as their dressed weight, and as he told me himself, "the best meat that was ever laid on a butcher's block in this town previous to that time;" and having won the first prize as the best pair of working oxen in this county, at our fair the fall before they were slaughtered.

In 1848 I purchased the bull Herald of F. M. ROTCH. His get on the Cortez heifers were superior to the dams, and from him I bred a pair of steers that I think surpassed those of Cortez' get. They were worked from 2½ years to 5 past, with success, weighing when sold, 3,800 lbs. They will stand summer's heat and winter's cold, at least such has been my experience, with sufficient weight and activity to accomplish all farm purposes; and with the fare of the cattle of this state in summer, will get fat, and keep so in winter with good hay. The meal spoken of by Mr C., will only mature them so much faster—that's all. The grade cows, whether of old style or new, are without doubt the best milkers in the State, and were it not for the expense, they would be sooner disseminated. The grade cattle in this county have won more prizes than the Devons when at maturity, and I think are working into popular favor. I have frequently been told by experienced dairymen, that their best cows were grade Short-Horns. Where the land is poor or very stony, they will not do as well as a smaller breed, as they wear out their feet in one case, and get little or nothing to eat in the other. The only difficulty in them for working oxen, that I ever experienced, is their inclination to get fat; and I do not let my calves suck three cows either, "out of the necessity of the case."

That there may be poor specimens of Short-Horns, I do not doubt, as also in all other breeds. I was very fortunate in my purchase of Mr. Rotch, of the bull Cortez, and I am much indebted to him for information at the time of his purchase.

I am now using the imported bull *Marquis of Carrabas*, purchased of Mr. L. G MORRIS, and I shall be much disappointed if his get will not sustain me in my vindication of the Short-Horn against the "observation" and sweeping denunciation of them by Mr. C. I think he is in error as to their merits and abilities as cows and workers. I am open to conviction and want the best of everything in the stock line, and do not intend to denounce any breed. They are all valuable in their place; and if these remarks benefit any one, my end will be accomplished. I could say much more in their favor from actual experience; and various other things connected with farming, which I will reserve till a future day. J. TALCOTT. *Rome, N. Y.*

Clingstone Peaches.

Clingstone peaches are not generally appreciated. Very few who plant peach orchards, include any. For some culinary purposes, they are greatly superior to freestones. There is a firmness, substance and flavor possessed by them, which gives them advantages when made into pies and pickles. They might be sent to more distant markets, or kept longer at home, than other varieties. They may be picked and remain several days before fully ripe, while freestones have to be hurried off for immediate sale. The Late Heath clingstone has been picked in the north just before frost, and kept several weeks on shelves in a cool place, until nearly winter.

Re-Grafting Old Trees.

The late GEORGE OLMSTED of Hartford, Ct., was very successful in grafting new tops into old trees. His rule was always to begin at the top and graft one-third of the tree in each year—three years being thus required to complete the entire head. By grafting at the top first, the grafts are not shaded by the remaining branches; while the necessary reduction throws the sap into the remaining side limbs, and gives them vigor for grafting the next year. A tree *seventy-five years old*, was successfully treated in this way. The fourth year afterwards it bore ten bushels of apples; the fifth year, eight bushels; and the sixth year twenty-eight and a half bushels.

Our readers will have observed the recent statement in this paper, of LUTHER BARBER of East Bloomfield, before the Fruit Growers' Society of Western New-York, of the mode he has long since adopted in re-grafting old trees, and in which he has had much experience. We have examined trees of his working, and know his statement to be correct. His mode consists, briefly, in sawing off the large limbs low down, or very near the trunk, and setting a circle of grafts, an inch or two apart, into the exterior of the wound. They grow rapidly and soon cover the whole surface. This mode, combined with that of G. Olmsted, above described, would undoubtedly prove a very complete one.

Covered Yards for Cattle.

MESSRS. EDITORS—We are having a heavy snow storm—wind north; thermometer down to zero. It has reminded me of the sufferings of the brute creation, as they are kept mostly without shelter in this section of the country. Among the many recommendations by your numerous correspondents, on economy with regard to cattle, I have not seen any that recommended yards being covered for cattle. Seeing the sufferings of cattle, even with good sheds for them to lie under, also the waste of manure, I built a shed to enclose the whole yard, watering tubs included, and after using two winters can truly say I consider it a great economy as well as convenience. With suitable racks and boxes, there need be no waste of hay, and that alone is a saving of twenty per cent. Then the manure is not washed by every storm and half its fertilizing qualities lost, and it can be carted out much earlier in the spring. The convenience of taking care of stock under cover is quite an item. As far as my experience goes, cattle winter better under cover, running loose, than fastened in close stables. I would recommend all farmers to enclose their yards with a good cover, and sides sufficient to exclude the cold blasts and snows, having them well lighted, and with a plenty of good clear water. N. H. ALLEN. *Plattsburgh, N. Y.*

* * *

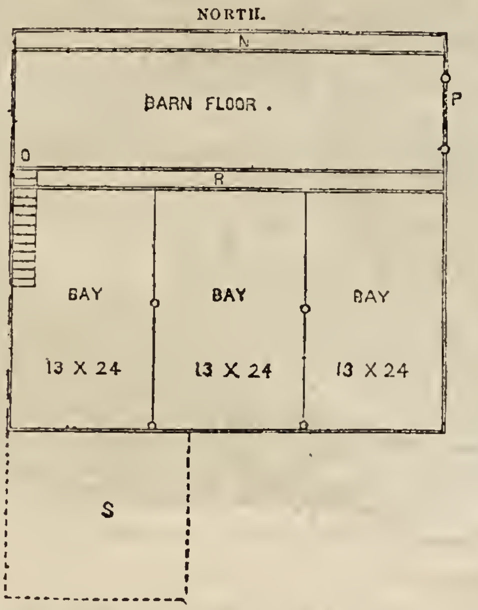
FARMER'S CLUB.—The annual meeting of the *Sinclearville Farmer's Club* was held Jan. 10th, and the following officers elected for the year:

President—HEMAN KILBORN.
Secretary—W. W. Henderson.
Treasurer—J. Warren Billings.
Executive Committee—E. A. Drake, O. S. Robertson, and J. Beck.

This Society has been organized two years, meeting weekly for the discussion of agricultural subjects and mutual improvement. In connection is a circulating library of agricultural and scientific books. We commend the plan to the attention of farmers. B.

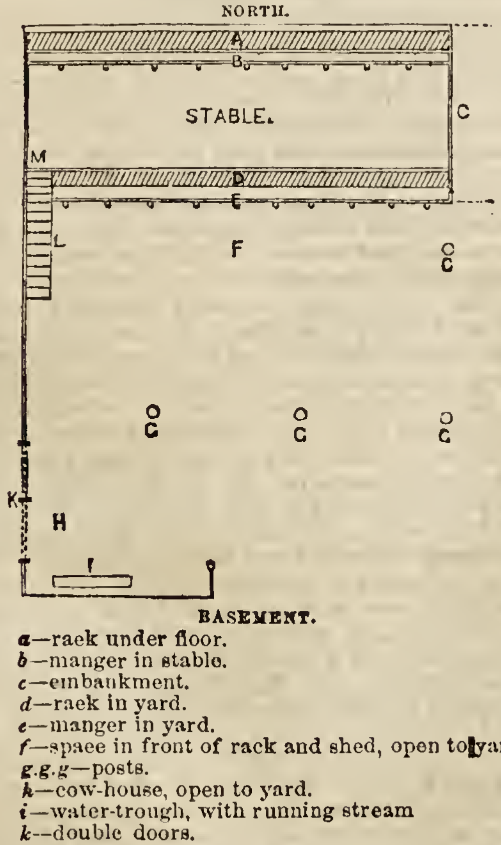
Plan of Barn with Basement.

Messrs. Tucker & Son—There being manifested of late much interest in the construction of barns, as I have noticed by looking over The Cultivator, I have been induced to give you a rough sketch or plan of the basement and lower floor of a barn which I built three years since, and with which I am well pleased, as to its economy of construction, for convenience, storing of hay, stabling and feeding cattle, making manure and protecting the same from the weather, furnishing shelter for stock, &c.



FLOOR OVER BASEMENT.

n—opening for feed, from floor with doors.
o—stairs to basement.
p—barn doors.
r—opening for feed, from floor into yard.
s—roof of cow house in basement.



BASEMENT.

a—rack under floor.
b—manger in stable.
c—embankment.
d—rack in yard.
e—manger in yard.
f—space in front of rack and shed, open to yard.
g.g.g—posts.
h—cow-house, open to yard.
i—water-trough, with running stream
k—double doors.
l—stairs.
m—stable door.

The barn referred to is 40 by 36 ft., with cow-house attached as represented, which gives in the basement a stable 12 ft. by 40, which is divided off to accommodate 10 oxen, and which are fed through the floor above into a rack over a manger, so that the hay that falls from the rack is secure in the manger below.

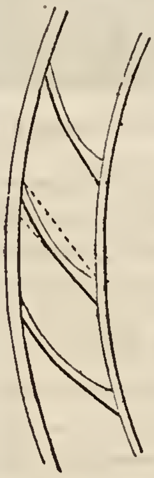
From the south side of the barn floor, I feed directly into a rack in the yard and under the bays, where is also a manger to take all that falls from the rack, and where there is an abundance of room for 10 more head, which makes in all, room for 20 head of cattle, all under cover, and all fed without going off the floor.

In this arrangement we are also provided with stabling for the stock, and a cow-house for shelter, of 24 ft by 40, without infringing upon or taking up any part of the body of the barn. Should you feel disposed to publish the within in your valuable publication, I think some of your subscribers might perhaps like to copy in whole or in part from the plan annexed. Samuel Dearing. *Farmington*, *Ct.*, *Jan.* 12.

Water Wheel for Thrasher.

Messrs. Editors—Could you or some of your readers inform me through The Cultivator, what kind of wooden water wheel will be best to drive a thrasher and a feed mill, on a small stream where there is but six or seven feet head and fall, and fifty inches of water. T. G. *Patton*, *C. E.*

We would by all means recommend a *breast wheel*, (a *back-shot* of mill-wrights,) with the modern mode of curved buckets, worked out of the two-and-a-half or three inch plank, which forms their bottom, as shown in the annexed figure, which gives an end view of the buckets. The dotted line shows the original form of the plank, out of which the buckets are made. The curved form has some important advantages;—the buckets may be placed nearer together, and a wheel of equal size thus affords more capacity; and the water will not be wholly discharged till it reaches the bottom, thus proving more efficient. A wheel 8 feet in diameter would be large enough. It is found best to let the water on very near the top; and the smaller the wheel is for the fall, the nearer the water will be discharged to the bottom. It might sometimes be an advantage to have plenty of capacity, and the breadth of the wheel might be some ten feet. Such a wheel should not revolve in less time than 8 seconds, or 3 feet of circumference to the second. Less would be better than more. For the water, when it first drops, falls one foot the first quarter of a second, or at the *rate* of four feet per second, and if the wheel should revolve faster than the water falls, it would lose all its force on the wheel, until its velocity becomes great enough to overtake the wheel. We have known some wheels in which half the power of the water was lost by too great a velocity.



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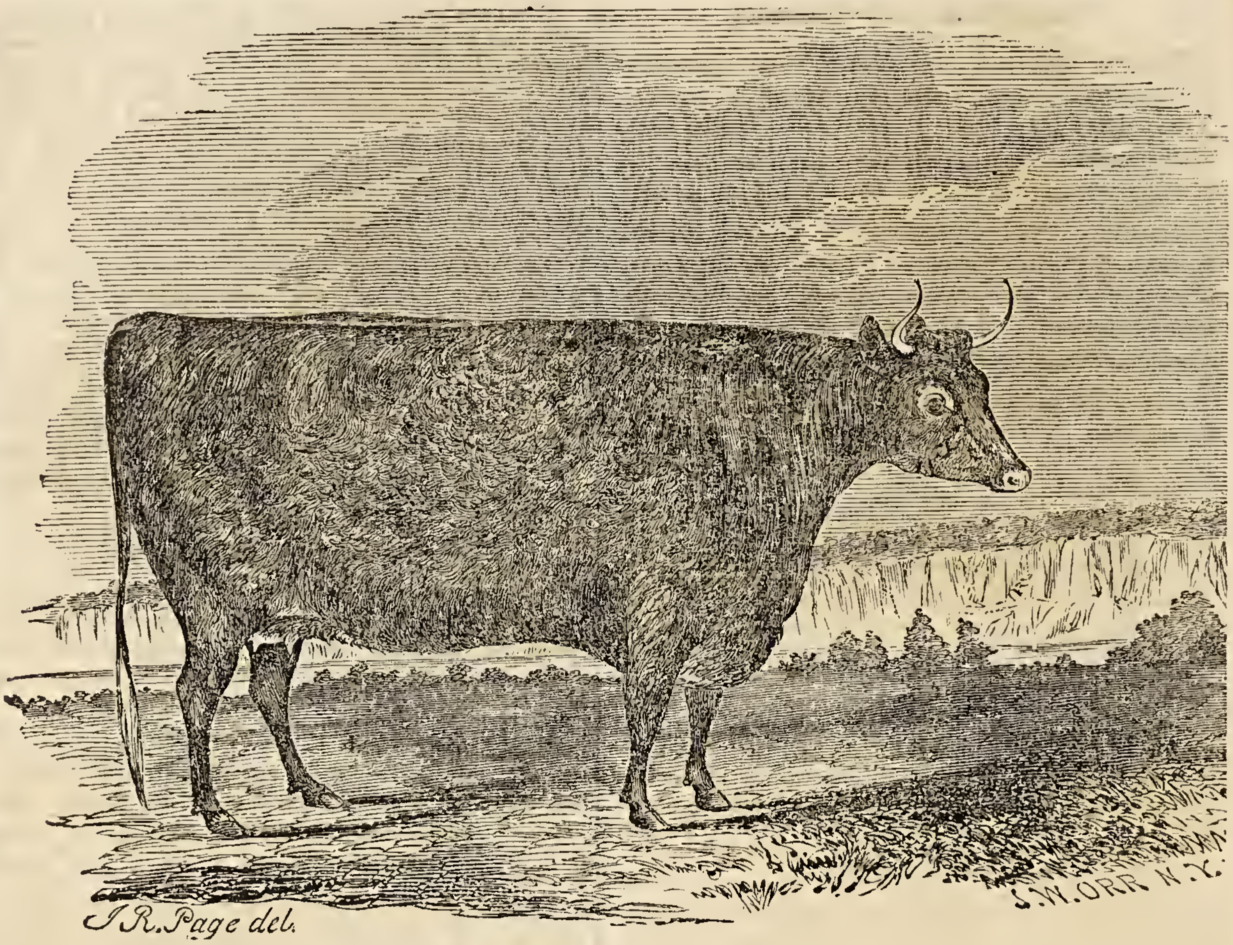
Clinton Co. Ag. Society.—The annual meeting was held at Plattsburgh, Jan. 14, when the following officers were elected:

President—J. H. Sanborn, Plattsburgh.
Vice-Presidents—E. A. North, Champlain; Dean Delanee, Chazy; Thos. Crook. East Beekmantown; John Ransom, Mooers; Z. C. Platt, Plattsburgh; Miner Martin, do.; Lawton Adeoek, Schuyler Falls; Wm. A. Keese, Peru; Richard Heyworth, do.; Wm. Taylor, Ausable; A. D. Barber, Beekmantown.
Treasurer—Edwin Benediet, Plattsburgh.
Secretary—Jno. L. Stetson, Plattsburgh.


J.R.Page del.
S.W.ORR N.Y.

Devon Cow Edith.

Edith, calved Oct. 9, 1848—bred by Earl Leicester, and imported by Col. L. G. Morris in 1850—Sire, Barton, bred by Mr. Turner—gr. sire, Hundred Guinea (56.) Dam, Emily (158) by Spencer—g. d., Ellen (157) by Quartly—gr. g. d., Evergreen (159), bred by Earl Leicester. Edith was purchased at Col. Morris' sale in June last, by Capt. J. Hilton, President of the Albany Co. Ag. Society, by whom she is now owned.

Use of Lime on Limestone Soils.

Messrs. Editors—Your correspondent, W. Bacon, Richmond, Mass., in an article under the above caption, after giving "an example of the benefit of lime on limestone land," adds, "there was doubtless some cause why the result we have noticed was produced, but what the cause was is beyond our power of explanation." Could there be any other cause than a deficiency of lime in the soil?—the "lime ledges," and the opinion of a distinguished chemist to the contrary notwithstanding?

It is a great mistake to suppose that in districts containing limestone, a sufficient quantity of lime is necessarily incorporated in the soil, in a condition to meet the wants of the growing crop. All soils being derived from the crumbling to pieces of the rocks which lie upon or near the surface of the earth, we can to some extent determine the character of any soil by examining the rocks in its vicinity; and if those contain lime, we may reasonably expect to find it in the soil. But there are two or three conditions to be observed when judging of the soil by any other method than by accurate chemical analysis. The rock must be of that character which will yield readily to the natural agencies employed for the purpose of division and decomposition—there must have been no disturbing cause capable of removing or covering up the soil thus formed; and it must not have been subjected to an exhausting system of cultivation. The chemist, to obtain lime from the rock, first grinds it to powder—then dissolves it by acids—then precipitates it by a chemical reagent, and filters it from the solution. Now this is precisely the method which nature pursues to accomplish the same end; for the rock in the field is first reduced to an impalpable powder—it is subjected to the action of acids or other solvents, and by a series of more delicate manipulations than are seen in the laboratory, fitted to enter the invisible mouths of the hungry plant. But while man can produce the result in a few hours, nature requires thousands, perhaps millions of years, depending on the force and activity of the agents employed, and the susceptibility of the rock upon which their power is exerted. Now it is known that the lime rock of many districts is of a character which renders it in a great degree impervious to natural influences; and the quantity of lime taken from the soil by one single crop of wheat or corn, is more than will be returned to it by the natural decomposition of the rock in a thousand years. Hence one cause of the small quantity found in the soil, and the necessity of increasing it by artificial means, as in the case related by your correspondent. In all cases where the application of special manures is followed by a larger growth and a more abundant harvest, may it not be safely assumed that the soil is deficient in those ingredients which the careful husbandman has supplied? L. Chandler Ball. *Hoosick Falls, N. Y.*

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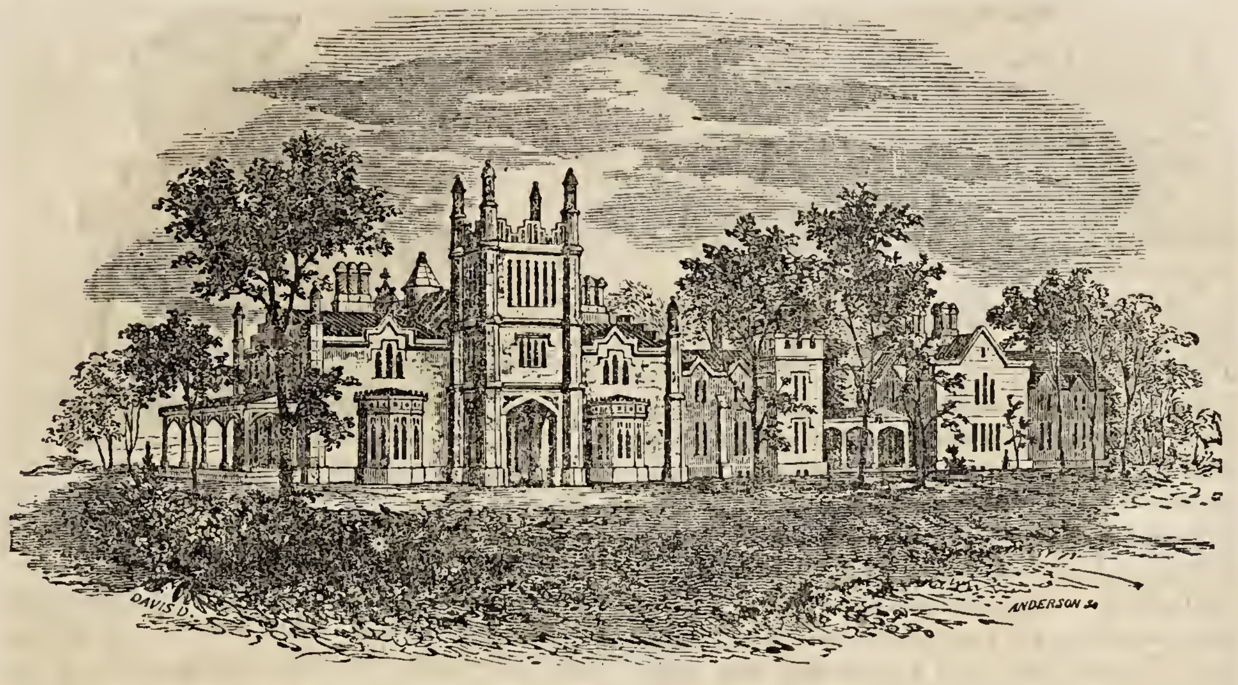
Large Turnep.—Mr. John M. Houghtaling, of Bethlehem, in this county, has exhibited in this office a monstrous purple-top English turnep, which weighed, when first taken from the ground, 14 lbs.



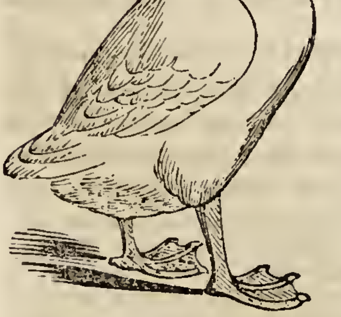
Belmead.

The above engraving represents the Mansion House at Belmead, Va, situated 40 miles above the City of Richmond, on the James River. It is in the pointed style of architecture of the English Tudor age, and was erected some years since from designs by A. J. Davis of New-York. It forms probably one of the most extensive and complete country residences this side the Atlantic, and is beautifully situated, commanding a fine view of the river valley and hills beyond. The great tower is 20 feet in diameter and nearly 60 feet high.

White Chinese or Swan Goose.

Messrs. Editors—In Miner's "Domestic Poultry Book," the following opinion of this beautiful bird is given :—

"This bird deserves to rank in the first class of ornamental poultry, and would be very prolific under favorable circumstances."



Two years ago Wm. H. Murtfeldt, Esq., of Newburgh, received two pairs of this variety, direct from China. They were very beautiful birds. Not having a favorable situation for keeping them, he did not succeed in raising many, although they laid a great many eggs. Last spring my father procured thirteen eggs of him, which he placed under two hens. They hatched twelve goslings about the middle of May last, of which he raised eleven without any trouble,—they being perfectly hardy. Last December they commenced laying and have laid from ten to fifteen eggs apiece. The eggs of the young geese are quite small, but those procured from Mr. Murtfeldt were as large as those of common geese.

Not knowing whether many of this variety have been imported, or whether they generally succeed well, I have sent you this brief notice, hoping to hear either from you or your correspondents more about them. William D. Barns. *Middle Hope, Orange Co.*

How Kentucky Bacon is Cured.

Messrs. Editors—As this is the time of year when most farmers prepare and cure their bacon, I have taken the liberty of writing out for the Country Gentleman the recipe practiced by myself, and which is the same in general use among the farmers of Kentucky. We will therefore suppose that the hogs are well fatted, and are butchered when the air is sufficiently cold to cool the meat thoroughly to the bone. It is then cut out in the usual manner, when we use the following recipe for curing :

To one bushel of strong hickory ashes, add three bushels of good salt, two piuts of ground red pepper; mix well together, and rub the hams and shoulders thoroughly. While rubbing them, sprinkle over the fleshy part of the joint two teaspoonfuls of ground saltpetre, which should be rubbed with the hand until it is entirely absorbed.

For the middlings or sides, we usually use salt without the ashes or pepper.

Then carefully pack your meat on a good platform. After it has laid in salt six days, raise it, and again rub it over, using the same mixture. Pack it down again, and let it remain five weeks. Then take it up and hang it in the meat-house, where it should be carefully smoked until the first warm weather in April, at which time I carefully canvass each of the hams with cheap cotton, and rehang them, in which position they should remain during the year.

It is worthy of remark that the efficacy of ashes in preserving bacon was discovered by the American soldiers during the Revolution, when, from the excessive high price of salt, they were compelled to use some cheaper article having the same curative property. Isaac P. Shelby. *Ruemont, near Lexington, Fayette Co., Ky.*

The Concord Grape.

L. Tucker & Son—The object in writing you is to make a few inquiries in regard to the "Concord Grape."

Is its skin as tough—kernel as large, and its pulp as indigestible as that of the Catawba or Isabella; and at what time does the former ripen? The two latter with us (42½ degrees North) are perfectly hardy and are our best grapes—the Catawba for wine and the Isabella for the table.

The character and qualities of the Concord *ought* to be well known in New-York. By giving us the desired information, you will greatly oblige A Subscriber. *Dubuque, Iowa.*

The skin of the Concord is tenderer than that of the Isabella—kernel about the same—but of its comparative digestibility we are unable to desermine, as with us, they all digest with much certainty. The Concord, according to several experiments made with it in Western New-York, ripens about ten days before the Isabella—in Massachusetts, it is reported to ripen three weeks before. The Concord, when grown under favorable circumstances, is a large and very showy grape, not quite equal in quality to well ripened Isabellas, and with a hardy vine. It is evidently a valuable sort for market.

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Market Fruits for Wisconsin.

Messrs. Editors—I intend to set out in the spring a variety of fruits in the garden, for the market, and I wish to make the inquiry of you or some of your correspondents, through the Country Gentleman, for the best varieties of Strawberry, Rapsberry, Blackberry, Cherry, Plum, Pear, and Apples. I have five acres of land accessible to market, which I am devoting to a vegetable and fruit garden, and I wish to get started right. Any information in regard to the best varieties of fruit for such a purpose, will be thankfully received. Z. Haughton. *Elkhorn, Wis.*

The following varieties of fruit have proved successful in Wisconsin, and may be recommended for market:—

Apples.—Early Harvest, Early Strawberry, Red Astrachan, Sops of Wine, Sweet June, Duchess of Oldenburg, Fall Wine, Autumn Strawberry, Rambo, Gravenstein, St. Lawrence, Fall Pippin, White Winter Pearmain, Fameuse, Jonathan, Domino, Westfield Seeknofurther, Red Canada.

Pears.—Doyenné d'Ete, Brandywine, Flemish Beauty, White Doyenné, Belle Lucrative, and Louise Bonne of Jersey on quince, Glout Morceau, Easter Beurre.

Plums.—Washington, Imperial Gage, Smith's Orleans, Lombard, McLaughlin and Red Gage.

Cherry.—Early Richmond, May Duke, Belle Magnifique, and Morello.

Strawberry.—Large Early Scarlet, Hovey's Seedling, Neck Pine.

Blackberry.—New Rochelle.

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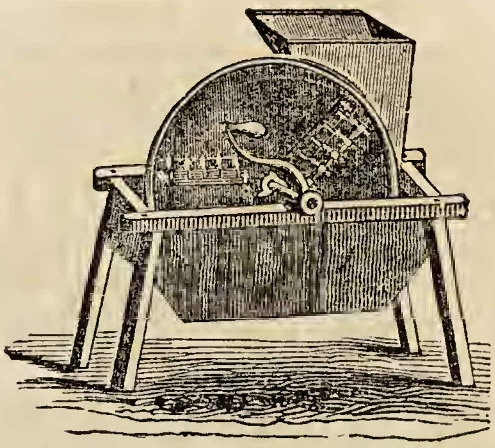
Green and Yellow Newtown Pippin.

At the winter meeting of the Ohio Pomological Society in 1856, A. H. Ernst of Cincinnati, the president, stated that until recently he had dis-believed there were two varieties of the Newtown Pippin, but he had been since fully satisfied that the yellow and green were distinct—the former a firmer fleshed fruit, somewhat different in shape, and a longer keeper; the latter more juicy, crisp and tender, of greener color, and of more regular form or less one sided.



Root Cutters.

Messrs. Editors—Do you know of any root cutter for cutting potatoes, &c., and if so, what the cost and where found. S. W. J. *Thurman, N. Y.*

The figure above represents a vegetable cutter, which can be had at the agricultural warehouses in this and other cities—price $10. We copy the following description of it from Emery Brothers' Catalogue:—"It is constructed with a heavy iron face plate wheel, with three large apertures through it; this wheel revolves on a shaft by means of the crank or other power, and in front of a hopper into which the vegetables are thrown. There is one long, wide knife at each aperture, which serves to cut the roots into large slices; there are also on the front side of the wheel five smaller knives, placed at right angles with each large knife; these serve to cut the slices into strips at the same operation. One bushel can be cut per minute with this machine, and every strip not to exceed an inch and a quarter in width, and any desired thickness, according to the set given the three large knives."

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Lime on Grass.

Messrs. Editors—I have not noticed any account of the utility or gain of top-dressing to land in meadows with lime. We have this fall been carting fine stone lime (unslacked) and spreading it upon the sward to slack by the copious rains of winter and spring, expecting to plow and plant it with corn the coming spring; but circumstances have changed, and we wish to defer plowing it another year if practicable. Will you be so kind as to send me an answer in some of the coming numbers, (if any of your subscribers have tried the experiment,) how it will answer. A. J. Hopkins. *Hanover Neck, N. J.*

We are unable to say what benefit the grass will derive from the lime—because, from a difference of soil, a greater effect is produced in some regions than in others. If the lime could have been dry slacked to powder, it might have been more evenly spread, and thus have become more uniformly and intimately diffused through the soil. There is no question that the lime will be in better condition to benefit next year's crop, for lying one year in the grass. It often happens that little benefit is perceived the first year. In lower Pennsylvania, where strong or magnesian lime is used, it is a common practice to apply it to grass land the first year, until it loses its caustic nature, and is better fitted to crops generally.

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Augusta Co. (Va.) Ag. Society.—At the annual meeting Dec. 22,

Maj. J. McCue was chosen President.
S. B. Finley, Col. W. P. Tate, S. H. Bell and Robert Grey, Vice Presidents.
Wm. M. Tate, Sec'y and Treas.

Answers to Five Questions.

1 Can I raise and secure Timothy and Clover seed cheaper than it can be purchased? What is the best mode of securing, and the best machine for cleaning, price, &c.

2. Is Rye profitable as food for stock? If so, how should it be used, and what is its comparative value.

3. What is the best breed of Swine for New England? I hear some doubts of the hardiness of the Suffolk. A few years since, I had some Chinese, (so called,) short-legged, short-nosed, fatted easily, and were excellent pork. Can these be obtained?

4. I have a grape border, (cold grapery,) two feet deep, on a slight slope; soil a light loam; subsoil mostly sand. Does it need draining?

5. What use can be made of horn pieces, such as the refuse of comb-makers—glazed and hardened by cooking in oil and pressing? Sulphuric acid has no effect on them. H. C.

1. Clover and timothy seed *may* be raised and secured more cheaply than they can be purchased in market, and skillful farmers make a profit in raising these seeds, but to many others they do not repay the labor. We are unable to say which is the best machine of those in use.

2. We have used ground rye as food for domestic animals—one bushel is probably worth two bushels of oats—but it does not appear to be profitable to use in this way, as rye is a two-year crop, and consequently costs more to raise than spring-sown grain. If it could be raised with as greal facility as oats and barley with its present acreable product, it would be well worthy of cultivation for domestic animals.

3. We have not discovered the Suffolk to be tender, with such protection as all swine should have. We do not know of any breeders of China hogs. The Berkshire is a most valuable breed, but from its color became unpopular—we have no doubt that half-blood Berkshire and Suffolks, crossed with the best natives, would be perfectly hardy, and prove eminently profitable.

4. If the excavation in which the border is placed retains water at the bottom, after spring thaws or heavy rains, it should be drained—but if the subsoil is porous so that the water escapes immediately, draining is not necessary.

5. We cannot give a satisfactory answer to this question.

Applying Hen Manure.

Messrs. Editors—I wish to learn through the Cultivator how I may safely apply hen manure to the hills of corn. I have about 40 bushels which I wish to put into the hills before planting. How much may I safely put in each hill? Will some one who knows inform me? W. F. Woodward. *Warsaw, Wyoming Co. N. Y., Jan.* 19.

Manufacture the hen manure into several times its bulk of *compost;* place it in a long pile, ridge or bed, and mix it well by plowing and harrowing it intimately together, and then apply it to the land. If all is applied in the hill, there would be enough probably for four or five acres; and if the compost is one-fifth hen manure, it would require nearly or about a pint of the mixture for each hill to go over this surface of land, the hills being three and a half feet apart each way. If the corn could be planted in drills or furrows, a good deal of labor might be saved in making the compost as follows: Prepare, plow and harrow the land; plow a moderate furrow where each drill of corn is to be planted; then strew the clear hen manure along the furrow at the rate of one pint to a rod, which would make it cover three or four acres, or it might be applied heavier in drills, or one pint to ten feet, covering two acres. Then cut a green pole two or three inches in diameter, with plenty of side branches cut with projecting stumps; drag this by a horse or horses along the furrow, and it will grind and mix the manure into the soil, and form a compost already applied, although not quite so good as when the ingredients have lain together for a few weeks. It is important, therefore, that thorough pulverization and mixture be effected.

We should be glad to hear the experience of any of our correspondents on this subject.

Rats and Mice Repelled from Dwellings.

Mix almost any sort of meal, as Indian corn or wheat shorts, and arsenic, in the proportion of about two quarts of the former to one ounce of the latter. Place it in protected places under your barns and out houses, where children, pigs and chickens will not be likely to get it.

I advise thus to place it some little distance from human dwellings, both on account of greater safety to human beings, and the probability that the rats and mice getting the poison, would die at a distance from them. My own way is to remove a stone in the underpinning of my barn, and shove under a narrow board to which a tin pie-pan is fastened, (by driving shingle nails each side of it,) and on which I place some of the mixture. I also place it in sheltered places in my wood-house, where there are known places of the entrance of these creatures. Where the ordinary provisions of the family are well secured, during the summer rats and mice usually take to the fields and hedges. They return during the autumn, as provisions become scarce in their summer haunts. This is the very time to interrupt them in the manner I have mentioned. Thus I did during the past autumn. The result is, that but one rat has been heard about my premises for a long time, and that one was but once heard, and at a time long ago. My family contains but one servant and no small children, and the whole arrangement of this thing is in my own hands, otherwise it might not be so safe to use so powerful a poison as arsenic. There are numerous other substances that may be used besides arsenic. And I write now not so much to commend *it* as the especial ingredient of poisonous mixtures, as to describe what I consider the *safest and most effectual mode* of its application. C. E. Goodrich. *Utica, N. Y.*

To make Hard Candles of Soft Tallow.

I noticed a request a short time since in the Co. Gent., for a receipt to make soft tallow hard. I send you one I know by experience to be good. To twelve pounds of tallow take half a gallon of water, to which add three table spoons of pulverised alum, and two do. salt petre, which heat and dissolve; then add your tallow and one pound of beeswax; boil hard all together, until the water evaporates, and skim well while boiling. It should not be put in your moulds hotter than you can bear your hand in. The candles look much nicer when the wicks are not tied at the bottom. It is not only a disagreeable task to cut the wick off, but it injures the moulds. Never heat your moulds to draw your candles in cold weather.

Perhaps it is not generally known that tallow from beeves fed on corn or grain, is much softer than when fed on grass or clover. Therefore the tallow from grass fed cattle should always be selected for summer use, and the candles will always be hard with the addition of very little alum and beeswax. In very cold weather much less alum must be used, or they will crack so as to fall to pieces sometimes; and a third more of each should be used in very warm weather if the tallow is very soft. With a little management you can always have hard tallow for summer use where you make all your own candles. F. *Putnam C. H., Va.*

Notes for the Month.

☞ New Postage Law—Please make a Note of this.—According to our Postmaster's decision, under the new postage law, The Register cannot be sent by mail without pre-payment of postage. Hence those who are now forming clubs for either the Co. Gent. or Cultivator in connection with the Register, will please bear in mind to add in all cases two cents per copy for postage on the latter. This should not be forgotten in sending additions to clubs already made up; as, although the sum may be a small one in each individual instance, in the aggregate it is so large that we cannot afford to lose it.

☞ Stamps should also be sent to pre-pay sample or missing nos. wanted.

Gratifying Encouragement.—We quote the following sentence from a letter dated *De Kalb, Miss.*, Jan. 17, to show in what estimation our paper is held by some in parts of the country so distant, that, according to ordinary belief it would be of "no use at all;" and we may add that it furnishes ample proof of a statement we recently made, that the principles of sound agricultural practice are the same every where, and that the readers of a reliable agricultural paper can scarcely fail to profit thereby, no matter how far asunder they and its editors may be:

> "Gentlemen—You must pardon me if I have spoken too highly of the Cultivator and Register. I tell my neighbors that I have taken it five years, and every number has come safe, and that I can beat any man that will not take it. By trying a little I send you twenty subscribers." B. H.

For which we are much obliged, and sincerely hope that the post-office will deal as punctually by our correspondent in the future as it has in the past.

—In another letter, dated *Martin's Depot, S. C.*, and received by the same mail, we find the following:

> "Continue to send to my address the Co. Gent., as I would not do without it for five times the amount of the subscription." J. R. G.

—Since we have begun, we may also subjoin the paragraph below, extracted from a letter dated *Baltimore, Md.*, Jan 6, and which is expressed in still more complimentary terms:

> "By the way I regard the Country Gentleman as the best agricultural journal which reaches my table, and I am a subscriber to all with which I am acquainted. When asked a few days since by your agent here, whether I would continue my subscription, I replied, 'Yes, at any price not exceeding $20 per annum;' and I would not now for that sum be deprived of it." J. A T.

—The preceding are all from a distance—let us conclude with a line or two from nearer home—the author being an ex-president of our State Agricultural Society:

> "I hope you are getting on well with the Co. Gent. and Cult. for 1857. The Co. Gent. is a most capital paper. I don't well see how it can be bettered."

Michigan Ag. College.—We are glad to learn that this institution, endowed by and under the charge of the State, is about to go into operation. It is located on a farm of nearly 700 acres, near Lansing, the capital of the State. One wing of the college building and a boarding-house have been erected, and the institution is to be opened on the first Wednesday of April next. The pupils must be fourteen years of age, and have acquired a good primary school education. The tuition is free to all pupils from the State. Every student will be required to devote a portion of each day to manual labor, for which he will be entitled to receive an equitable remuneration. The course of study has been arranged with direct reference to the wants and interests of the agricultural class of the State. It will embrace a wide range of instruction in English Literature, in Mathematics, and in Natural Science. Special attention will be given to the Theory and Practice of Agriculture in all its departments and minutiæ.

Fat Steer.—Mr. James McQuade of the Center Market in this city, last week slaughtered a very fat steer, supposed to be full blood Short-Horn, fattened by Mr. Duncan of Bourbon county, Ky., and purchased from Messrs. Snowden and Charles. It was four years old, and its weight was as follows:

Live weight,		2,232 lbs.
Weight of quarters,	1,541	
Rough tallow,	198	
Hide,	113	
Dressed weight,	——	1,852 lbs.
Loss,		380 lbs.

Extensive Importations of Cattle.—It is gratifying to notice that the spirit attending our American stock importations is still kept up. Among those made during the past two years, we are happy to notice the fine Short-horn herd of Frederick Wm. Stone, Esq., of Moreton Lodge, Guelph, Canada West, comprising, in all, upwards of sixty animals. The majority of these are his own importation, and many of them rich in the "Bates," and other celebrated blood of distinguished herds in England. We heartily wish Mr. Stone that measure of success to which his enterprise is so well entitled, among our American Short-horn breeders.

Fat Sheep.—R. P. White, Esq., of Adams, Jefferson Co., N. Y., recently slaughtered a long-wooled sheep, bred by Messrs. Hungerford & Brodie, which weighed when dressed, 180 lbs.—live weight, 290 lbs.

Fine Beef.—Charles Hatch, Esq., of Cornwall Bridge, Ct., slaughtered last week, a steer of high grade Durham blood of his own breeding, three years old, weighing alive seventeen hundred pounds.

Large Turkeys.—Mr. Jerome Pike of Pomfret, Conn., recently killed five turkies, which, after being dressed—(the head and wings taken off, and the entrails drawn)—weighed 1061 bs. They were sold at 18¾ cents per lb., producing $19.88, or a fraction less than $4 each. They were hatched about the first of June last, and were of the large variety described by Mr. Allin in the Co. Gent. of Jan. 15. Mr. A. has sent us one of the eggs of these turkeys, which measures longitudinally, 9½ inches in circumference, and 7½ inches round.

A Little Too Bad.—"The Farmer's Journal and Transactions of the Lower Canada Board of Agriculture," a monthly paper published at Montreal, in its issue for February, copies Eight articles from the Country Gentleman, *without* any acknowledgment as to the source from which they were derived. We have rarely, if ever, seen a number of this Journal, without more or less articles copied from our paper without credit, and we should be greatly obliged if the editor would advise us as to the principle which governs him in giving credit for his selections, for the evidence is before us that he does in some cases give the proper credit.

Apples in Nine Months from the Seed.—Wilson Flint of Alameda, in the California Farmer, says—"In August last I budded a row of seedling apple trees, with buds of this season's growth, of the Yellow Siberian Crab. In two weeks the whole row was in blossom, and to-day, Dec. 13, I have gathered a quantity of beautiful rosy-cheeked apples as the result. Thus in nine months from the time of planting the seed, I have raised the stocks, budded them, and harvested ripe apples from the trees. Can the world beat this?"

Indian Corn—Large Crops.—The Caledonia Co. (Vermont) Ag. Society, at its winter meeting, awarded three premiums on Indian Corn—the first for 93 bushels per acre—the second, 81 bushels, 26 quarts, and the third, 80 bushels per acre. These are good crops for any country.

New-York State Fair.—The next exhibition of the New-York State Ag. Society is to be held at Buffalo, during the week commencing Oct. 5th.

Winter Butter.—We are indebted to H. L. Knight, Esq., of Auburn, for a roll of winter made butter, as sweet and yellow as the best made in September. Its quality proves the skill of the maker, as well as the richness of the milk of his cow "Hodges," from which it was made.

Black Knot.—Some three years since I had some young cherry trees attacked with the black excrescence that has destroyed nearly all the cherry trees in this vicinity. I scraped it off, and dusted with plaster freely all of them, and have done it in the spring ever since, and have seen no more of it. C. K. [Cutting off promptly and continually is a sure remedy for the black knot on the cherry or plum—dusting with plaster had not probably much effect. Washing the wounds with chloride of lime, when large, is useful.]

State Fairs.—Vermont is to hold its next State Fair at Montpelier, Sept. 8—11; and Ohio at Cincinnati, Sept. 15—18.

The Dioscorea Batatas.—A correspondent in Tioga county, Pa., says—Last spring I planted six of the Chinese Yam. Two of them grew, but with so delicate a vine that I have not meddled with them since. Am inclined to thing it a humbug. c. k.

An English gardener who visited the gardens around Paris the past autumn, speaks of this plant as follows: "I saw the Dioscorea after the second year of cultivation, little better than we have it in England, and they say it is of no use without two year's growth in Paris. If, as experience proves, it is so shy, we may take our leave of it as an article of staple food."

The Bainbridge Agricultural Society was organized on the 3d day of January, 1857, as a town society, under the act of the Legislature of 1855. The officers are a President, Philo Kirby—six Vice-Presidents—a Secretary, Burr C. Campbell—a Treasurer, Jos. Juliand, 2d, and 6 directors. The town being large, it was deemed expedient to have a number of officers, that one might be located in almost every neighborhood, to attend to the interests of the society. The members meet every Saturday evening at Bainbridge village, to discuss a subject connected with agriculture, which is adopted at the preceding meeting. The present subject is, "the best method of making manures and applying them to the land." A division of the society has been organized at South Bainbridge village, where the members meet every Wednesday evening. The present subject for discussion at that place is, "the best method of cutting grass and making hay," which brings up the question of mowing machines. Similar divisions of the society are about being organized at the village of Bennettsville and at West Bainbridge—thus providing for four weekly evening meetings, of the farmers of the town, for the purpose of discussion and informing themselves in *their business*. Some one of these meetings is thus brought in convenient access to nearly every farmer in town, and the society hope by this means to reach and bring within its benefits, the great mass of farmers within its limits. J.

◆

Winter Meeting of the N. Y. State Ag. Society.

This occasion drew together the past week a more general representation, we think, than usual, of the farmers of the State. The customary business was transacted with great apparent good feeling; the subjects of discussion were of an interesting nature, the debates upon them brief and pointed, and the proceedings in conclusion somewhat varied, and pleasantly so, from the old routine.

The meeting was opened at the Assembly Chamber Wednesday noon, President Faxton in the chair. The following abstract of the Treasurer's Report was first read:

RECEIPTS.

Balance in Treasury, Feb. 1856,	$2,743.69
From members at annual meeting,	323.00
Premium returned,	4.00
From State,	700.00
Receipts at Fair, Watertown,	8,010.00
Rent of grounds,	200.00
Horace Greeley for premiums offered,	100.00
Watertown, in part payment expenses,	500.00
Notes discounted,	5,397.30
	$17,977-99

EXPENDITURES.

Expenses Winter meeting,	$80.51
Premiums at Fair at Elmira.	216.38
" Winter meeting,	677.50
Library, Books and Binding,	163.94
Postage,	194.75
Dr. Fitch, Entomologist,	1,050.00
Incidental expenses,	990.30
Printing and advertising,	194.03
Salaries of assistants, &c.,	2,202.75
Superintendents and gate-keepers at Fair,	582.27
Miscellaneous expenses of Fair,	1,213.27
Clerks and assistants at Fair,	505.50
Premiums paid at Watertown,	4,366.09
For completing Agricultural Room,	3,495.77
Notes paid,	3,000.00
	$18,933.06
Treasury in advance,	$955.07
Appropriations in Supply Bill for moneys advanced to complete rooms, salary of entomologist, &c.,	4,595.77
Which, when received, will leave a balance in Treasury of,	1.1400L

During the morning session, after listening to a satisfactory report from the Executive Committee, the Society discussed the question of a Permanent Location, deciding *no!* to amend the constitution as moved by Mr. Clarke of Otsego, by a vote of 132 to 20, and appointed the usual nominating committee of three from each Judicial District.

When the Society had again convened the report of the Committee was read, recommending Buffalo as the location of the next Fair, and nominating the following list of officers for the ensuing year:

President—Hon. ALONZO S. UPHAM, of Genesee.
Vice-Presidents—Jonathan Thorne, Wm. C. McCoun, Herman Wendell, John M. Stevenson, B. E. Bowen, Francis M. Rotch, Willard Hodges, Lewis F. Allen.
Corresponding Secretary—B. P. Johnson.
Recording Secretary—Erastus Corning, Jr.
Treasurer—B. B. Kirkland.
Executive Committee—G. W. Tifft, E. C. Dibble, C. S. Wainwright, Solon D. Hungerford, C. Morrell.

After some discussion this report was adopted with a unanimity quite uncommon of late years; the subject of horse-trials at County and State Shows was debated at length on a resoultion offered by Mr. Allen, recommending that they be given up,—and finally referred to the Executive Committee, and, in the evening, Dr. Fitch delivered an interesting Address on the Entomology of the State, and a brief discussion took place on the merits of Dwarf Pears. Thursday evening the Society's new apartments were "dedicated," Messrs Johnson, Cheever, Bogart, Peters, Kelley, Gov. King and others taking part in the exercises, and Mr. Faxton, delivering his retiring address, and introducing the new President Mr. Upham, to the meeting. The usual vote of thanks was passed, and the proceedings closed with a collation prepared by the Society's Albany friends.

[We give a much fuller account of the debates, proceedings, &c. in the Co. Gent. of Feb. 19, but are obliged to condense it as above, in order to admit of its appearance in this number of the Cultivator.]

nquiries and Answers.

Grafting or Budding the Hickory—Please tell us in the Country Gentleman, whether the hickory can be successfully budded or grafted. Probably very many of your readers would like to learn how to do it. I know of hickory nuts much better than almonds, and have tried grafting them repeatedly without success. The trees are getting old, and if not perpetuated by some means, they will be lost; and young trees I find bear the best fruit. J. R. Comstock. *Mabbettsville, Dutchess Co., N. Y.* [We never had any experience with budding or grafting the hickory. Will some of our correspondents please give the desired information—and state whether very early grafting is necessary, as is the case with the cherry.]

Remedy for Wet Manure Cellar.—*C. S. R., Nyack, N. Y.* When the water springs up through the earth bottom, and floods the manure, it may be effectually excluded by a coating of cement or water lime. A paving of stones a few inches in thickness, (without brick,) well covered with two or three coats of water lime mortar, will answer the purpose. The first coat should be rather soft when applied, so as to enter among the stones and form a solid mass. If any water enters at the side walls, it may be excluded there also, by coating them with the cement. It is important during the severe weather of winter, to keep the coating sufficiently covered with manure to prevent its freezing, or it will crack and leak. Where this precaution cannot be secured, we should prefer a mixture of sand and coal tar, instead of cement, as the frost will not touch it.

Manure for the Ozier.—What is the best manure for Ozier willow, the time to apply and how to apply it, on a plantation where the willows are three feet apart one way and a foot the other. James Thompson. *Rose Hill, Ballston, N. Y.* [Will some of our experienced correspondents please answer? We suppose the time and mode of application must be modified by the nature of the soil, whether upland or muck. Our opinion would incline us to recommend a mixture of stable manure and ashes for low land; and this mixture with the addition of muck, for upland; and to apply in autumn or winter.]

Guano.—Please to tell us in the Cultivator how to pronounce "*Guano*." Let us have our agricultural literature as near right as may be. N. R. [The general pronunciation in this country, is with three syllables, the accent being on the middle one, which is sounded like *a* in *far*, and with the *u* and *o* being just perceptibly sounded long, like u in mute, and o in note.]

Fish.—Permit me to inquire if you, or any of your numerous readers, can inform me if I can obtain in this country, two kinds of fish which are plentiful in England, viz., Carp and Tench. I wish to stock my pond with these kinds of fish, and shall feel obliged to be informed where to obtain them. John Giles. *Woodstock, Conn.* [We believe these fish have been imported, and shall be greatly obliged to any gentleman who can furnish the desired information.]

Cement Cisterns.—I am desirous of making a cistern on high and dry land with a hard clay bottom. In such a case is a brick wall necessary, and if so, would a four inch one suffice? How many coats ought the cistern to have (of cement) and how thickly put on? C. S. R. *Nyack, N. Y.* [If the soil is hard, dry, and compact, so as to admit of a smooth excavation with pretty steep walls, the cement may be applied directly to the earth. Three coats will be necessary; the first, an inch or more think; the two others as thin as can be properly applied. The only disadvantage of this mode is, the upper part being the widest, (shaped like a kettle,) longer, stronger, and a greater amount of timber is needed to sustain the earth covering. Hence the advantage of a stone or brick wall, which may be contracted towards the top, and require but little timber for a cover. If the earth is compact, and is packed solid without, a circular brick wall four inches thick would answer; for acting as an arch, the earth without could not crowd it in, and the earth without would prevent the liquid contents from bursting it. We have preferred, however, to build walls of stone nearly or about a foot in thickness, contracting them towards the top.]

Soiling Cattle.—Can you refer me to some work upon soiling cattle, showing the difference and any advantage of one over the other method. W. A. C. [We know of no work on the subject, and can only refer you to the various articles which have appeared in The Cultivator during a few years past.]

Poultry.—Please inform me through The Cultivator, where I can get Dorking and Black Spanish fowls for a less sum than advertised in your papers—a price which greatly deters many from entering into the breeds of imported birds. D. K. N. *Wheeling, Va.* [We can not furnish the information desired. Poultry breeders would do well to advertise their birds, with prices, &c., in our papers.]

N. Y. S. Poultry Society.—Can you inform me through your paper, when the N. Y. S. Poultry Society have their exhibition—also, who the Secretary of the Society is? H. W. R. [A meeting of the managers to decide as to the exhibition, was to have been held in this city last week, but was, we believe, postponed on account of the weather. The question will soon be settled, and the time and place for the exhibition, if one is to be held, announced. R. C. M'Cormick, Jr., New-York, is the Cor. Sec'y, and M. M. Kimmey, Cedar Hill, Rec. Sec'y.

Question to Mr. Johnston.—In reference to the controversy being carried on just now in your excellent paper, on the subject of managing Farm-Yard Manure, I would be glad to have an answer from Mr. Johnston, to the question I am about to ask. My cattle are all housed from the 1st Nov. to the middle of May. The chief part of my manure is made in boxes, and that which is made in stalls is thrown out daily, but remains under cover during the winter. In the spring, the whole is carted to the field, and at once laid in the drills prepared for it. These drills are then covered by splitting the ridges, and the seed is sown for green crops over the manure. Supposing that I follow Mr. Johnston's plan, I want to know if it is his opinion that the increase of my crops will pay the expense of double hauling, and of turning over once or twice, previously to second carting. T. E. C. *Canada East.*

Clearing Forests by Steam.—I have read with considerable interest your short description of the steam tree-cutting machine, but I should be glad to hear more from it, as we are in a new but beautifully timbered country, mostly beech, maple, and large whitewood. If we could do our cutting down and sawing into wood and saw-logs by steam, it would be worth something to us; for we are but one mile and a half from the pier on the shore of Lake Michigan, where we can ship for Chicago at good prices. Please let us hear more from it, as to price, &c., through the Gentleman, for he is a welcome visitor in our family, and we wish him a happy New-Year. W. Corner. [We have heard nothing of this machine since we saw it at the State Fair. Will its proprietors answer the aboxe?]

Dogs.—I wish to know if there is a breed of dogs called the Rat Terrier, in this country—if so, will they exterminate the rats, and where can they be had, and the cost. J. M. Parker. *West Pawlet, Vt.* [There are two varieties—the Tan and Scotch Terriers, which are pretty sure to exterminate all rats on the places where they are kept. The exploits of a famous Terrier, called "Billy," are chronicled in the dog books, who was once matched to destroy one hundred rats in eight and a half minutes. The rats were brought into the ring in bags, and as soon as the number was complete, he was put over the railing, and in six minutes and thirty-five seconds they were all destroyed. In another match he destroyed the same number in six minutes and thirteen seconds. There are a good many of these Terriers in this city, and we presume in most of our cities and other parts of our country, but where they can be procured we are unable to say. They are generally held at pretty high prices—say from $10 to $30 per pair, according to purity of blood.]

Wheat in Vermont.—*C. H.*, *Rutland.* Thirteen bushels per acre is a very moderate product. We have often heard of *salt* proving valuable to wheat, and improving the crop, and it is recommended by high authority; but our own experiments do not favor its use. Lime is often very useful, and sometimes not; but yard or stable manure should be the main reliance as a fertilizer, except on the richest soils.

Underdraining in New England.—*J. H. B.*, *Newtown*, *Ct.* Underdraining low or swamp lands has long been practiced with great success in various parts of New England; but we are not aware of experiments on the English plan, on common upland. Such experiments have, however, proved eminently successful in New-York. Land which had been pronounced "dry enough," after being subjected to a thorough system of underdraining, by running the ditches at regular intervals about thirty feet apart, has continued to yield large streams of water through its tile during considerable portions of the year. In large districts in Western New-York, where the soil is rather heavy in its character, underdraining is coming into very general practice, because those who have adopted it, find as a general rule that the increased crops pay for it in about two years. On soils of a similar character in New England, it could not fail to prove equally profitable, provided tile could be procured at the same price. Under favorable circumstances, it cannot be thoroughly done (3 feet deep) for less than about thirty or forty dollars per acre. As influencing causes differ more or less, in different districts, we are always in favor of testing every thing by experiment, and we would recommend our correspondent to make a trial on a single acre, and observe the result.

Cultivating only with the Dew.—I should like to know if any of your readers have experimented in working their land at the time the dew is on, and not at any other time, and can give the result. I have plowed and planted to corn and potatoes, and worked them only at the time of the dew, and I am satisfied that the yield was larger than when worked at any time of the day. L. C. *Monroe Co.*, *N. Y.* [This is an interesting subject for inquiry and experiment. We do not know of any definitely conducted and accurate trials to prove the utility of the practice, although approved by many good farmers. Theoretical, or rather hypothetical writers, have dwelt much upon the practice of covering the soil (as in mulching) to prevent the escape of the volatile parts of the soil; and again, oppositely, have urged the importance of stirring the soil and exposing it, that it might absorb gas from the air. Mulching and stirring the soil are both very useful—but we cannot discuss their rationale here. We hope our enterprising readers will try the experiment fully, of cultivating only under dew, and after giving it a very thorough trial, side by side, or in alternate strips, with land dissimilarly treated, weigh or measure the results, and report them.]

Rolling in Seed.—It is the custom of some farmers in these parts, on sowing grain, or in seeding lands, to roll the ground after sowing. Permit me to ask you if this is a useful and profitable operation for any kind of grain, grass seed, or onions, on any kind of land, and if so, on what kind of soil and for what crops best used, and oblige, W. B. B. *Shirley*, *Mass* [In most cases, rolling in seed after harrowing is beneficial. If the soil has been recently pulverized, and lies loosely with large interstices, rolling brings it into contact with the seed, and renders germination more certain. A proper judgment must be exercised, as rolling too heavily may do more injury than good; and generally, if the soil is quite moist, it is better omitted—especially if it approaches adhesiveness in its quality. Whenever the soil is rather dry, rolling may be performed with a decided hope of benefit. Some farmers use the roller exclusively for covering grass seed in spring, on mellow or recently pulverized ground, the seed falling into the interstices, and the roller pressing the earth about them. The smaller the seed, the greater its influence.]

Chufa or Earth Almond.—Is the Chufa or Earth Almond of much or any value? and if so, will it succeed so far north as at Albany? J. R. C. [The Chufa has been successfully raised in the northern states. We do not believe it can become eminently valuable, but think it may prove an interesting addition to our products.]

Kohl Rabi and Hens.—Can you tell me in the Co. Gent., what is the plant called *Kohl Rabi*, and whence the name? And what is the best kind of *hens* for ordinary farmers to keep, where can they be obtained, and at what price. W. E. P. *Blandford*, *Mass.* [Kohl Rabi is the bulb-stalked cabbage, and is a variety of the *Brassica oleracea*, (var. *Caula rapa.*) It is quite similar in nature and character to the ruta baga. The name (German) as we understand it, indicates its peculiarity of growth. We cannot inform our correspondent which is the best breed of hens, from *satisfactory data.* Various breeds are *claimed* as best by their several owners; but the opinions of their value have not been established by accurate experiments, showing the exact amount of eggs and flesh from a given quantity of food—and without such clear proof, we have no right to give an opinion, except as a random one, which could be of little value.]

Beans.—I saw a communication on the culture of beans in the May number of the Cultivator for 1856, page 149, written by H. H. B. He speaks of a kind of beans that are very early and produce well. Below his signature it was mentioned that they were the White Cranberry. I wish to know where I can get two bushels, and at what price; also what kind of manure I shall apply to my beans. My soil is a limestone clay but not apt to bake—produces good corn, wheat, and potatoes. J. G. Meyer. *Pleasant Hill Farm*, *Pa.* [We presume you can procure this variety of the bean from any seed-store in Philadelphia. Perhaps H. H. B. will answer the inquiry in regard to the best manure for beans.]

Brighton Market.—*G. D. D.* Brighton is two miles out from Boston, Mass., and is the great cattle market of Boston.

Hams in Charcoal.—Will hams keep moist, packed in charcoal? K. S. P. [We have never known any difficulty on this account. Charcoal is remarkable only as an absorbent of the *gases*—but will not abstract moisture from meat in any considerable degree.]

Poison for Rats.—Rats have become very troublesome in the neighborhood where the writer resides. A resort to poison seems necessary to get rid of them. Arsenic and strychnine have been used, but the rats soon become suspicious and avoid it. Will some one who has been successful in combining poison with oils, or other substances alluring to rats, communicate the precise ingredients for publicaton in Co. Gent. H.

Inflammatory Rheumatism.—[Although "not in our line," we give place to the following inquiry:] I have a valued friend who has been most awfully afflicted with inflammatory rheumatism for over fifteen months—a great part of the time unable to dress or feed himself, his knuckles, elbows and other joints being distorted. Now if any of our correspondents can advise a remedy, they would be entitled to the lasting gratitude of their fellow-being. W. S. *Ozauke Co., Wis.*

RED CEDAR.—How should red cedar berries, recently gathered, be treated to ensure germination? Will they grow the same season planted or not until the spring following. H. [Free them from the flesh or pulp, mix them with sand, and expose them to the weather. If in the best condition, they will grow the first year—otherwise not till the second. We have known a large proportion of the berries to germinate and produce trees, when merely sown without any preparation in thick woods with underbrush, which afforded sufficient moisture for the seed, and shade for the young plants.]

SMOKEY CHIMNEYS—In answer to a Virginia correspondent. There are so many causes that influence the draught of chimneys,—externally, in connexion with prevailing winds, hills, and adjacent buildings; and internally, in consequence of different forms and modes of construction,—that it is impossible to prescribe without full knowledge of all the circumstances, which could not be well acquired without being on the spot. The best thing we can do in the case, is to recommend our correspondent to the article on this subject in *Thomas' Farm Implements*, pages 227 to 231, where several important principles are laid down, and suggestions made.

SOUTH DOWNS AND BERKSHIRES.—What can a South Down buck (pure blood,) and a Berkshire boar be purchased for in your section? The very best stock, from imported stock? R. W. B. *Charlestown, Va.* [SAMUEL THORNE, Washington Hollow, Dutchess Co., N. Y., has South Downs, and EDWARD WAIT, Montgomery, Orange Co., N. Y., has Berkshires, such as you want. We do not know their prices.]

HARDPAN.—I wish some of your readers would give us some information on the management of hardpan soils. We think they need draining, and have done considerable in that way with cobble-stone and open ditches, but our under-stratum is as hard as any concrete, and requires the pickaxe to break it, which is expensive. W. G. *North Bay, N. Y.*

Fruit Trees! Fruit Trees!

THOMAS & HERENDEEN, of Macedon, Wayne Co., N. Y., offer for sale a choice collection of Fruit Trees, suitable for orchards and gardens, propagated with great care from BEARING TREES, and consisting of

Apples, Peaches, Pears, Cherries, Plums,

And the smaller fruits generally, as GRAPES, RASPBERRIES, CURRANTS, GOOSEBERRIES, STRAWBERRIES, &c., of the most valuable varieties grown in the Northern States; and a fine supply of Ornamental Trees, Shrubs, and showy Perennial Plants.

☞ Careful selections for orchards and gardens, to insure an early, medium and late supply of delicious fruit, will if desired be made by the proprietors, without additional charge purchasers merely giving the number of trees.

Feb. 26—w6tm2t

CRANBERRY PLANTS.

D. L. HALSEY, of Victory, Cayuga County, N. Y., will furnish Cranberry plants of the following kinds: Upland Bell, Upland Cherry, Favorite, Bell and Large Bugle—all warranted good bearers at $1 per 100, or $6 per 1000,

All orders enclosing cash promptly attended to. Plants forwarded by Express to all parts of the United States and Canada; and all letters enclosing a postage stamp promptly answered. Feb. 26—w2tm1t*

FOR SALE,

A MODERN-BUILT HUTCH or Cage for breeding the Fancy Lopp-Ear Rabbits. This Hutch will accommodate 20 to 30 full-grown rabbits. Cost $85 in its construction—will be sold at a bargain. Address

S. V. C. VAN RENSSELAER,
Feb. 19—w1tm1t Claverack, Col. Co., N. Y.

SPLENDID NEW PLANTS.

A PRICED CATALOGUE of the largest collection of European novelties in the country, including many of remarkable excellence, will be sent to applicants. Also a full descriptive general Catalogue of FRUIT and ORNAMENTAL TREES, GREEN-HOUSE PLANTS, &c., will be sent upon the receipt of a post-stamp.

Address W. C. STRONG,
Feb. 26—w6tm2t Nonantum Hill, Brighton. Mass.

SITUATION WANTED,

AS FOREMAN on a farm, by a young man, born and brought up on a farm in this State, and who understands his business, and can present the best testimonials as to character and capacity. Address

B. P. HAWLEY,
Feb. 26—w1tm1t* New-Baltimore, Greene Co., N. Y.

PERUVIAN GUANO,

In large or small quantities at Lowest Market Price.

R. L. ALLEN, 189 & 191 Water-st., New-York.

☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.

March 1—weow&mtf

Fruit and Ornamental Trees.

ELLWANGER & BARRY, proprietors of the MOUNT HOPE NURSERIES, Rochester, N. Y., solicit the attention of Nurserymen, Planters and Dealers, to the extensive stock now on their grounds, which they are prepared to offer for the ensuing Spring trade.

Their Nurseries were established eighteen years ago, and now occupy 400 acres of land, closely planted. The stock now growing is the most varied and extensive ever offered in this country, including

Standard Apples for orchards,
Dwarf Apples on Paradise and Doucain stocks,
Standard Pears on free stocks, 1 and 2 years,
Dwarf and Half Standard Pears on Quince stocks, 1 and 2 years from bud.
Standard Cherries on Mazzard stocks } 1 and 2 yrs. from bud.
Dwarf do. on Mahaleb, }
Plums, Dwarf,
Peaches, Apricots, Nectarines, Quinces, &c.
Grapes, hardy, Native and Foreign varieties.
Strawberries, Gooseberries, Currants, Raspberries.
Rhubarb and Asparagus, &c.

The collection of bearing Specimen Trees is the largest in the United States. Besides, the proprietors devote their entire time and attention to the business, and they are thus enabled to guarantee the correctness of articles sent out.

THE ORNAMENTAL DEPARTMENT

Is equally complete, and comprises

ORNAMENTAL DECIDUOUS TREES of all kinds, including the most elegant Weeping Trees for lawns and cemeteries.

EVERGREEN TREES of all the most desirable species, and of all ages and sizes. More than a million of trees are in a saleable state, and are offered low, in quantities.

EVERGREEN AND DECIDUOUS FLOWERING SHRUBS, including almost everything suitable for the climate of the United States.

ROSES—Upwards of three hundred of the most beautiful varieties, carefully selected during many years culture and experiment.

PÆONIES—About eighty superb varieties, including many new and very distinct sorts.

PHLOXES—Seventy-five select and beautiful sorts, all of recent introduction.

CHRYSANTHEMUMS—Fifty of the finest Pompone or Daisy varieties, newly introduced.

CATALOGUES.

The following Catalogues will be sent gratis to all who apply, postpaid, and enclose a stamp to prepay postage:

No. 1—A descriptive Catalogue of Fruits.
No. 2—A descriptive Catalogue of Ornamental Trees, Shrubs, Roses &c., &c.
No. 3—A Catalogue of Dahlias, Verbenas, Petunias, and select green-house and bedding plants.
No. 4—A wholesale priced Catalogue for Nurserymen and Dealers. Feb. 12—w1t

ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE 14 INCHES LONG—PIECES.

2½ inches calibre,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

SOLE TILE 14 INCHES LONG—PIECES.

2 inches calibre,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y.
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—wxmtf 359 & 371 Broadway, Albany, N. Y.

List of Prizes Won by J. W. Ware,

Berryville, Clarke Co., Va., in 1856.

U. S. FAIR, PHILADELPHIA.

Second prize for thorough-bred Horse, Cosmo,	$100.00
" " " Mare, Vista,	75.00
For Cotswold Buck, over two years old,	15.09
" " under "	25.00
' Ewes, over "	25.00
	$240.00

AT WINCHESTER (VA.) VALLEY FAIR.

For thorough-bred Horse, certificate.	
" " Mare, Vista,	$10.00
" three year old Filly, certificate.	
" two "	10.00
" Yearlng Filly,	10.00
" Imported Buck, Cotswold,	10.00
" " Ewe,	10.00
" thorough-bred Cotswold Ewe,	8.00
" " " " certificate.	
" Pen three Cotswold Ewes, certificate.	
" three Buck Lambs, Cotswold,	10.00
" three Ewe " " certificate.	
" five Long-Wool Grade Ewes,	10.00
" " " " " Lambs,	5.00
" " Mixed Wool Ewes,	10.00
" " " " " certificate	
	$93.00

MARYLAND STATE FAIR, BALTIMORE.

For thorough-bred Horse, Cosmo,	$15.00
" " Mare, Vista,	15.00
" best " three year old Filly, Decca,	15.00
" " " two " " Maygo,	8.00
" best Imported Cotswold Ram,	30.00
" second best " "	15.00
" best Imported " Ewe,	30.00
" second best " "	15.00
" third best " "	10.00
	$153.00

The "United States Agricultural Exhibition" at Philadelphia last week, must have been the great fair of the season. The following, from the "Ledger," shows that Col. J. W. WARE, of Clarke, did not shrink from so imposing an arena of competition, and that, as usual, he was among the first.

"The horse part of the exhibition attracts the largest crowds, particularly when their points are shown upon the splendid track. Two horses entered by Col. Ware, of Virginia, were much admired. They are called 'Cosmo' and 'Gonzales,' both of which are of great beauty and symmetry. They were got by imported Skylark, and their dam by the famed Priam, which was imported to this country at a cost of $20,000. Skylark won 42 races, 24 of them King's Plates, and on several occasions he won two races on the same day."

The display of Imported Sheep is exceedingly fine; the most celebrated on exhibition being 19 of the Cotswold breed, 15 of which were imported at a great expense by Col. Ware of Virginia.

"The Colonel gained two first, and one second premiums for his Cotswolds, amounting to $60."

The following is a copy of a Certificate given me by Mr. BENJAMIN HOOD, a member of the Committee upon Long, Wooled Sheep, at the U. S. Fair in Philadelphia, October, 1856.

"I fed of Col. J. W. WARE's stock of Cotswold Sheep three wethers; one three years old, net weight, 234 lbs.; a pair of twins, two years old, net weight of one of these, 204 lbs.; of the other, 192 lbs. They were sold for $250, to David B. Paul, of Philadelphia. I consider them more profitable for Wool and Mutton than any other breed of Sheep." Signed, BENJAMIN HOOD.

PHILADELPHIA, October 10, 1856.

"DAVID B. PAUL, who bought the above mentioned Sheep, told me that in consideration of the quality and value of these Sheep, he, in addition to the above stated price for them, presented Mr. Hood with a piece of silver plate worth $25. T. F. NELSON,
A Member of the same Committee.

October 10, 1856.

UNION AG. SOCIETY OF VIRGINIA AND NORTH-CAROLINA AT PETERSBURGH.

For best Imported Cotswold Buck,	$15.00
" " " " Ewe,	15.00
" " Long-Wool " Buck,	15.00
" 2d best " " "	10.00
" best Pen, three Long-Wool Cotswold Ewes,	15.00
" 2d best " " " "	10.00
" best Pen four " " Buck Lambs,	10.00
" " " " " " Ewe "	10,00

MIXED LONG-WOOLS.

For best Pen of three Ewes,	25.00
" 2d best " "	10.00
" best Pen four Ewe Lambs,	10.00
" best Pen of four Grade Ewe Lambs,	5.00
	$150.00

VIRGINIA STATE SOCIETY, RICHMOND.
(Judges' Decision.)

For best Long-Wool Buck, Cotswold,	$20.00
' 2d best " " "	10.00
" best 3 " Ewes, "	20.00
" 2d best " " "	10.00
" 3d best " " " certificate.	
" best Pen four Buck Lambs,	10.00
" " " " Ewe "	10.00
" Long-Wool Grades, Lambs,	10.00
" best Buck,	10.00
" best Pen of three Ewes,	20.00
" second best Pen of three Ewes,	10.00
" best Pen of four Buck Lambs,	10.00
" " " " Ewe "	10.00

CROSS BREEDS.

For best Buck,	20.00
" second best Buck,	10.00
" " three Ewes,	10.00
" third best " certificate.	
" best Imported Cotswold Buck,	20.00
" second best Imported Cotswold Buck,	10.00
" best " " Ewe,	20.00
" second best " " "	10.00
Total, five Fairs, $876.	$240.00

Daily Dispatch, } Nov. 1, 1856.
Daily Whig, }

In all, including Certificates and Prizes, numbering 62.

NEW CHINESE POTATO,

(Dioscorea Batatas,)

ROOTS from 4 to 9 inches long, at $3 per dozen; and small seed tubers (can be sent prepaid, by mail,) at $1 per per dozen or $7 per 100, with description and directions for culture. J. M. THORBURN & CO.,
Jan. 28—w4tm1t 15 John-st., New-York.

FRUIT, ORNAMENTAL TREES AND SEEDLINGS.

W. T. & E. SMITH, proprietors of the GENEVA NURSERY, Geneva, N. Y., invite the attention of Nurserymen, Planters and Dealers to their general assortment of

TREES AND PLANTS,

Consisting of a large stock of Standard and Dwarf Cherry, Dwarf Pear, Dwarf Apples, Apricot. Peach, Raspberry and Strawberry Plants, Currants, Roses, large variety, Evergreens, &c. Standard Apple, one and two years old, cheap—to clear the ground.

Also—a large stock of SEEDLINGS of Mahaleb Cherry, Mazzard Cherry, Pear, Plum, Horse Chestnut, Arborvitæ, Basket Willow Cuttings, $1.50 per 1000 ; Quince Cuttings. Scions of all kinds furnished to order—terms low.

Feb. 19—w3tm1t *

FOR SALE.

NO. 1 Peruvian Guano,
No. 1 Manipulated Guano,
Superphosphate of Lime,
Bone—fine and coarse,
Poudrette, Plaster, &c.
Field and Garden Seeds.

A large assortment of the most approved AGRICULTURAL and HORTICULTURAL IMPLEMENTS.

☞ Also the little AMERICAN MOWER and REAPER, the best harvester in the world, at the low price of $100 as a mower—$120 as mower and reaper combined. This machine weighs only 450 lbs.. and is warranted. For sale by GRIFFING, BROTHER & CO.,

Feb. 19—w&m4m 60 Cortlandt-st., New-York City.

"Chinese Sugar-Cane Seed."

WE HAVE at last succeeded in getting a supply of the pure "SUGAR-CANE SEED," which is warranted, and we will supply sufficient to plant one-fourth of an acre for $1. All orders. if by mail, must be accompanied by the money and post-paid. The following is a statement of the product of this seed :

Yield of fodder per acre, 1100 to 1300 lbs.
" seed " 25 bushels, 36 lbs. to the bush.
First trial of mill, 70 average canes gave 20 qts. of juice.

Those wishing this Seed will please send their orders soon, to be sure of getting it, as the supply is limited.

RICHARD H. PEASE.
Feb. 19—w10tm2t Nos. 369 & 371 Broadway, Albany.

PERUVIAN GUANO.

NO. 1, Government Brand and Weight, for sale in lots to suit purchasers. Price $55 per ton of 2000 lbs.—in lots of 10 tons, $61 per 2240 lbs. A. LONGETT,

Feb. 26—w4tm2t. 34 Cliff-st., (cor. of Fulton,) New-York.

ISABELLA AND CATAWBA GRAPE VINES,

OF PROPER AGE FOR FORMING VINEYARDS,

CULTIVATED from, and containing all the good qualities which the most improved cultivation for over sixteen years, has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years. as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

All communications addressed to R. T. UNDERHILL, M. D., New-York ; or Croton Point, Westchester County, N. Y., will receive attention.

The additional experience of the four past seasons gives him full assurance that, by improved cultivation, pruning &c., a crop of good fruit can be obtained every year, in most of the Northern, and all of the Middle, Western and Southern States.

N. B. To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vine-dressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Also, APPLE QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.

Feb. 12—w&m R. T. UNDERHILL, M. D.

Superphosphate of Lime,

OF THE BEST BRANDS. For sale by
A. LONGETT,
Feb. 26—w4tm2t 34 Cliff-st., New-York.

Grist and Saw Mills and Farm,

FOR RENT OR LEASE,

SITUATED within nine miles of Baltimore City, in a healthy district of country. The grist mill is completely fitted up to do merchant work, having three pair of French burrs, four bolts, elevators, &c., &c. The wheel is 16 feet diameter by 6 feet in breadth, and has a fall of four feet with two feet head. An excellent dwelling-house near by, with poultry-house, corn-house and large stone barn, and about one hundred acres of land will be rented with the mill, or separately on shares.

Price for the entire property, $1000 per annum. To a tenant who could bring good recommendations, and would be willing to improve, a lease for a term of years, with the privilege of raising the dam several feet, will be given.

J. HOWARD McHENRY,
Feb. 26—w3tm1t Pikesville, Baltimore Co., Md.

Hotel Stand for Rent, Lease or Sale.

A THREE STORY BRICK HOTEL, situated in the town of Pikesville, eight miles from Baltimore, on one of the most frequented turnpike roads leading to that city. The main house is 40 by 60, and contains 15 chambers, 2 parlors, 2 dining-rooms, two good basement rooms, and cellars. The kitchen and servants' rooms are in a wing—stables and sheds in the rear. The house has been newly repaired and improved—it stands in a district noted for salubrity, and several lines of omnibus running to and from the city, pass the door daily. If well kept it would be a favorite place of resort during the summer months.

Rent for the buildings, with garden and lawn in the rear, **$600** per annum. More land may be had on lease, at the rate of $15 per acre. J. HOWARD McHENRY,

Feb. 26—w3tm1t Pikesville, Baltimore Co.. Md.

Chinese Sugar Cane

IN PACKAGES of 8,000 seeds, sent post-paid to applicants, for $1.25, with directions for culture. CHINESE POTATO (Imperial White) perfect tubers, the only ones for sale of American growth, $20 per 100. $5 for 20, $3 per doz. Imported tubers and root cuttings. uncertain varieties, $65 per 1,000, $7 per 100, with Treatise on Culture. Terms for the above articles when $5 or under—Cash : larger amounts one-third cash, two-thirds on delivery now or in Spring ; delivered and collected by Express. Earth Almond, $1 per 100. Liquorice, $10 per 100. Lawton Blackberry $23 per 100, $3 per doz. Osier Scions, 8 fine varieties, $2 to $5 per 1,000. Tanners Sumach $10 per 100. Victoria and Linnæus Rhubarb $9 per 100. Giant Asparagus $4 to $6 per 1000. Yellow and Honey Locust, and Osage Orange Seed. Stocks and Scions of all kinds for grafting. Cuttings of Trees and Shrubs. Tree, Vegetable and Flower Seeds in quantity. Grapes, Gooseberries, Currants, Raspberries, Strawberries, &c., cheap in quantity. The above are articles out of the general stock which can be supplied during the winter months. Priced Catalogues of every department of the Nurseries sent post-paid to applicants who enclose stamps.

WM. R. PRINCE & CO.
Flushing, N. Y.. Feb. 19, 1857—w1t—m1t.*

MICHIGAN FARM FOR SALE,

CONTAINING 150 acres of choice arable land, well adapted to growing grain or grass—110 acres are under good improvement, the balance in timber, and plenty of it. Fences in good repair. This farm is situated on one of the pleasantest streets in Michigan, and one of the most productive farms in the county. The University buildings, and part of the city of Ann Arbor, is in open view from the farm. On the premises is a substantial mansion, 40 by 26, with a kitchen. cistern and wood-house in the rear—all surrounded with a grove of trees—a well of good water, barn, and other out-buildings—a small orchard of choice fruit. Ann Arbor affords a ready cash market for all kinds of farm produce. This is a desirable farm, and worthy the attention of any one in want of such a property.

Also, 40 acres of rich swale land, distant about a mile from the homestead, containing 15 acres of the tallest kind of timber—the balance affords abundance of fine pasture for a large number of sheep or young cattle. The homestead will be sold separately if desired. Old age and impaired health, induces me to retire from business. Payments made easy. Inquire of the subscriber on the premises. WM. ANDERSON,

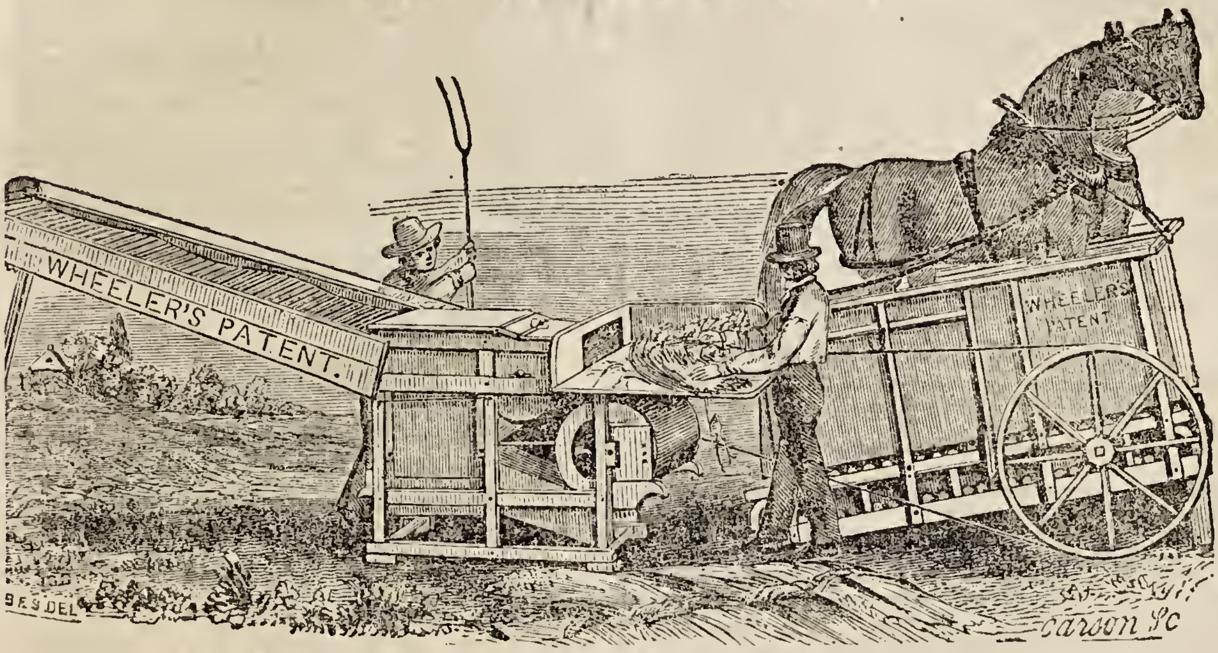
Feb. 19—w1tm1t. Ann Arbor, Michigan.

NEW-YORK STATE

AGRICULTURAL WORKS,

BY

WHEELER, MELICK & CO



Double Power, and Combined Thresher and Winnower, in operation.

We are Manufacturers of Endless Chain Railway Horse Powers, and Farmers' and Planters' Machinery for Horse Power use, and are owners of the Patents on, and principal makers of the following valuable Machines:

WHEELER'S PATENT SINGLE HORSE POWER,

AND

OVERSHOT THRESHER WITH VIBRATING SEPARATOR.

This is a One-Horse Machine, adapted to the wants of medium and small grain growers. It separates grain and chaff from the straw, and threshes about one hundred bushels of wheat or twice as many oats per day, without changing horses—by a change nearly double the quantity may be threshed. **Price $128.**

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

OVERSHOT THRESHER WITH VIBRATING SEPARATOR.

This Machine is like the preceding, but larger and for two horses. It does double the work of the Single Machines, and is adapted to the wants of large and medium grain growers, and persons who make a business of threshing. **Price $160.**

WHEELER'S PATENT DOUBLE HORSE POWER,

AND

COMBINED THRESHER AND WINNOWER.

(SHOWN IN THE CUT.)

This is also a Two-Horse Machine; it threshes, separates the grain from the straw, and winnows it at one operation, at the average rate of 150 bushels of wheat and 300 bushels of oats per day. In out-door work, and for persons who make a business of threshing, it is an unequalled Machine. **Price $245.**

ALSO CLOVER HULLERS, FEED CUTTERS AND SAWING MACHINES.

Our Horse Powers are adapted in all respects to driving every kind of Agricultural and other Machines, that admit of being driven by Horse Power, and our Threshers may be driven by any of the ordinary kinds of Horse Powers in use—either are sold separately.

☞ To persons wishing more information and applying by mail, we will forward a circular containing such details as purchasers mostly want—and can refer to gentlemen having our machines, in every State and Territory.

Our firm have been engaged in manufacturing this class of Agricultural Machinery 22 years, and have had longer, larger, and more extended and successful experience than any other House.

All our Machines are warranted to give entire satisfaction or may be returned at the expiration of a reasonable time for trial.

☞ Orders from any part of the United States and Territories, or Canada, accompanied with satisfactory references, will be filled with promptness and fidelity. And machines securely packed, will be forwarded according to instructions, or by cheapest and best routes.

WHEELER, MELICK & CO.,
Albany, N. Y.

Feb. 26—w1tm1t

Important to Farmers, Gardeners and Planters!

THE BROOKLYN FERTILIZING Manufacturing Company are now ready to offer their AMMONIATED TAFEU for sale, for the present at the low price of $25,00 per ton. It is a highly efficient fertilizer, prepared from Night Soil, Blood, and Butcher's Offal, received from the city of Brooklyn, under a contract for ten years—therefore consumers can always rely on its strict purity and uniformity, being manufactured under the supervision of a competent Chemist, and it is warranted to contain a very large per centage of Phosphates, Ammoniacal and Organic Substances, Potash, and other valuable ingredients, as may be seen by the Analysis in our circulars; and is believed to be one of the richest fertilizers ever used. For orders or further information, apply to the office of the company in Brooklyn, E. D., foot of South 11th street, or at 82 Water street, New York.

N. B. Circulars with full information and analysis will be sent by mail to any one requesting them.

March 1, 1857—w&m3m.

SPRING GARDEN SEEDS, &c.

THE BEST VARIETIES OF

PRIZE CUCUMBERS AND MELONS for frames.

Improved New-York EGG PLANT.

EARLY TOMATOES, CABBAGES AND LETTUCES.

Early Paris, Nonpareil, Lenormands and other approved CAULIFLOWERS.

PEPPERS, CELERIES, CARDOON.

PEAS—Early Daniel O'Rourke—Emperor, Cedo Nulli, Prince Albert, Champion of England, and the recently introduced and very superior later sorts, Lord Raglan, Epp's Monarch, Harrison's Glory and Perfection, &c., &c.

GREEN GLOBE ARTICHOKE—WINDSOR BEANS—BEETS—BROCOLIS—RADISHES.

CARROTS—Early forcing and other sorts.

MUSHROOM SPAWN—HERB SEEDS—SPRING TURNIPS—of sorts.

INDIAN CORN—Extra Early Burlington, King Philip and Darling's Sugar, Early Canada and Tuscarora, Evergreen, Old Colony and Mammoth Sugar, &c., &c.

CHRISTINA MUSK and NEW ORANGE WATERMELON.

POTATOES—Early Sovereign, Early June, &c.

BEANS—Early Snap Short, Valentine and other Bush varieties.

POLE BEANS—Large and Small Lima, Horticultural, Cranberry, &c., and every other desirable variety of Vegetable Seeds; all of the very finest qualities and growth of 1856.

FLOWER SEEDS—The largest collection to be found in the Union, comprising standard sorts and novelties, both of domestic and foreign growth.

NEW CHINESE SUGAR CANE, 75 cents a lb., and in packages at 25 and 50 cents each, prepaid, by mail; NEW CHINESE POTATO (*Dioscorea Batatas*); CHUFAS, OR EARTH ALMONDS; JAPAN PEAS, Spring and Winter VETCHES, or TARES. OSAGE ORANGE, YELLOW LOCUST, BUCKTHORN, HONEY LOCUST, NORWAY SPRUCE, SCOTCH FIR, and other Tree and Evergreen Seeds.

FRUIT SEEDS—Pear, Peach, Plum, &c., &c.

TOBACCO SEED—Maryland, Virginia, Florida, Connecticut Seed Leaf—Imported Havana, &c., &c.

DYER'S MADDER SEED—SPURRY—WHITE LUPINS—FULLER'S TEASLES.

BIRD SEEDS—Of all kinds.

AGRICULTURAL SEEDS—Field and Ruta Baga Turnips—Long Orange, White Belgium and Altringham Carrots—Mangel Wurzel—Sugar Beet.

GRASS SEEDS—Italian and Perennial Ray—Sweet-scented Vernal—Red Top—Blue—Festucas—French Mixed, and other desirable mixtures for Lawns—White Honeysuckle, Lucerne, and other Clovers, &c.

FRUIT, EVERGREEN AND ORNAMENTAL TREES—GIANT ASPARAGUS ROOTS—RHUBARB, &c.

GARDEN SYRINGES, BUDDING AND PRUNING KNIVES, PRUNING IMPLEMENTS, and a general assortment of the best varieties of HORTICULTURAL TOOLS.

Catalogues on application. If by mail enclose a three-cent stamp for return postage.

The smallest orders by mail promptly responded to.

J. M. THORBURN & CO.,
15 John Street, New-York.

JUST RECEIVED from Holland, in the finest condition, large and sound, an assortment of Bulbs for Spring Planting, viz:

AMARYLLIS (*Jacobean Lilies*) FORMOSISSIMA AND LUTEA.

GLADIOLUS. PSITACINNUS, FLORIBUNDUS, GANDAVENSIS and RAMOSUS—named and mixed sorts.

TIGER FLOWERS (*Tigridia.*) Red and Yellow.

TUBEROSES, MADEIRA VINES, &c., &c. Feb. 26—w4tm1t

King Philip or Brown Corn.

I WILL pack and deliver to the R. R. the above variety of seed corn for $1.25 per bushel. Address

JAS. W. GRAY,
Ball's Pond, Conn.

March 1—m3t

North Devon Bulls for Sale.

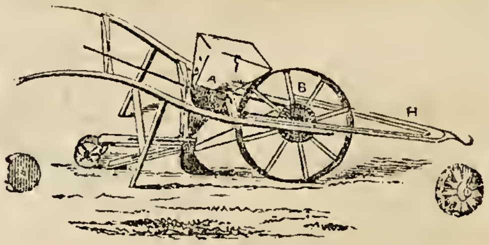
THE subscribers offer for sale two pure-bred North Devon Bulls from celebrated herds.

"New Britain 1st." was bred by S. & L. Hurlbut—is two years old, was sired by Albert, an imported bull, (see No, 2 English Herd Book.)—his dam can be traced back to an imported cow from the stock of the Earl of Leicester, Norfolk, England.

"New Britain 2d," will be one year old the first of March next, was sired by New-Britain 1st—his dam is from the stock of the original importation of the Messrs. Patterson of Baltimore. Full and reliable pedigrees can be given.

L. S. & L. R. WELLS,
New-Britain, Ct.

Feb. 5—w1tm2t



EMERY'S ALBANY CORN PLANTER AND SEED DRILL,

MANUFACTURED AT THE

ALBANY AGRICULTURAL WORKS,

BY

EMERY BROTHERS,

No. 52 STATE STREET, ALBANY, N. Y.

THIS MACHINE, as representeded in the above cut, is somewhat in the form of a common wheel barrow. It may be used as such by hand in gardens or patches where it is not practicable to use a horse, while in field planting a horse or mule may be used. It is light, but very strong and simple in its construction. It opens the furrow, guages and drops the seed, covers it and rolls it down.

For planting in hills or for drilling, it may be used for every kind or size of seed, from corn, beans, peas, &c., to the smallest garden seeds, and will separate with equal precision, whatever be the kind of seed or style of planting. Hills may be made at any distance apart from three inches to eight feet, and the same range of variations may also be made in drilling. The number of seed may be accurately guaged, as also may be the quantity of seed to the rod or acre, in the drill.

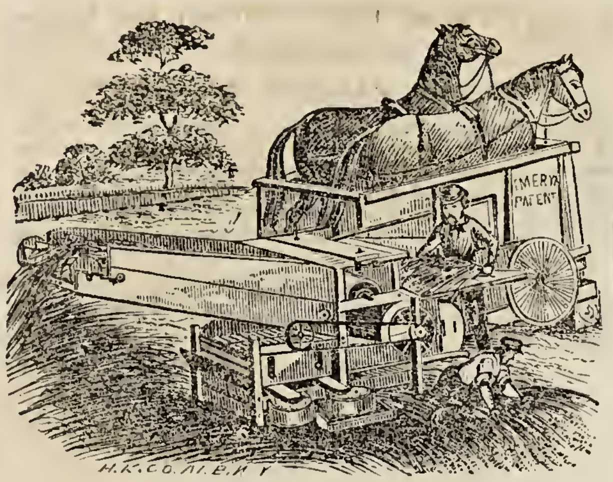
Seeds that will fall by their own weight are dropped by a wood cylinder having adjustible cups to measure or count the seeds as they are taken from the hopper, while light seeds, such as beet, carrot, parsnip, &c., are forced from the hopper by a brush cylinder, which causes them to drop with perfect accuracy and regularity. Any change in the Planter can be made in a few moment's time, and it may be instantly thrown out of gear when required to transport it from place to place.

This machine has been well known for several years, and bears a very excellent reputation. Many thousands of them are in use, and have received the unqualified approbation of all who have used them. We have greatly improved it from year to year, both in strength and workmanship, and now offer it to farmers and gardeners as the best, most useful, and nearest perfect thing of its kind extant.

One of the great advantages of this machine is that the hills are placed *absolutely in a line*, not varying a few inches to the right or left as when dropped by hand. This allows the Cultivator or Horse Hoe to run *close to the hills*,—the Cultivator may be expanded wider without danger of injuring the plants, thus leaving but little work for the hand hoe; even if there were rows two ways it would not be necessary to run the Cultivator both ways—and we would here remark that most agriculturists are satisfied that it is as *unnecessary* as it is *impracticable* to plant with a machine in rows *both ways*. The machine has yet to be invented that will plant *straight rows both ways*, and if the cross-rows are not *straight*, the advantages gained by running the Cultivator between them is not sufficient to compensate for the extra trouble and loss of time required to operate such a machine.

EMERY BROTHERS,
52 State-st, Albany, N. Y.

March 1—w1tm1t.



EMERY BROTHERS,

ORIGINAL AND SOLE PROPRIETORS OF THE

ALBANY AG. WORKS

AND

SEED STORE,

NO. 52 STATE STREET, ALBANY, N. Y.,

Manufacturers and Wholesale and Retail Dealers of and in the most approved Agricultural and Horticultural Machines and Implements Extant.

ALSO

Dealers in Grain, Field, Grass and Garden Seeds and Fertilizers.

THEIR leading business being the manufacture and sale of their justly celebrated ENDLESS RAIL ROAD HORSE POWER, together with a great number of labour-saving machines to be propelled by it for the almost Endless Variety of purposes to which horse power has been or can be applied for the use of the FARM, PLANTATION or MACHINE SHOP.

All their machines are made with especial reference to their being operated by the Horse Power itself, so that purchasers may not be disappointed by their failure to work as represented, which is often the case when machines are obtained from various sources and not properly adapted to each other.

This subject is often overlooked by the user as well as by the manufacturer of machinery, (either from inattention or want of practical experience ;) the consequence frequently is that machines which may be really good in themselves, operate in an unsatisfactory manner, or are thrown aside as useless. The proprietors have been at great pains and expense to simplify their machines, and to so adapt them to each other, and to properly equalize the force and resistance between them, as to produce the *greatest possible amount of effective power with the least possible loss by friction or otherwise.* The practical value of this judicious and careful manner of construction is fully apparent in the unprecedented and universal satisfaction which their machines have given, and the rapidity with which old prejudices have been dissipated wherever their machines have been used. These machines have been submitted to a greater number of severe trials, both public and private, during the last six years than, perhaps, all others together, and have been invariably successful when allowed to compete for prizes.

A few extracts from letters received are quoted below from many hundreds of like character on file. They show a fair average of what may be expected of the machines :

From Aaron Chapman, Crawford Co., Pa., Feb. 22, 1857.

"Messrs. EMERY BROTHERS—Sirs : I received from you in June last, one of your two HORSE POWERS and THRESHING MACHINES. It more than meets my most sanguine expectations. I have had all I could do with mine since threshing season commenced. I think I can sell several the coming season, and would like to have you give me authority to do so, and any instructions which may be necessary as to terms, &c., &c. Yours in haste."

From R. J. Wilson, Sussex Co., New Jersey, Jan. 26, 1857.

"Messrs. EMERY BROTHERS—I am very well pleased with your Patent One Horse Power and Threshing Machine. It works to a charm, and far surpasses any thing I have ever seen work. I am satisfied that I can with one horse thresh as much grain as any other kind of machine in this county can do with two horses."

From A. McBryde of Denmark, Tenn., Jan. 27, 1857.

"Messrs. EMERY BROTHERS—Gentlemen : With your TWO HORSE POWER and THRESHER, which I use with two mules, much lighter than the Northren Farm Horse, I averaged the whole season two hundred bushels wheat threshing per day — the wheat was good—the previous harvest was much injured by RUST and as large results could not be attained."

"Messrs. EMERY BROTHERS—In answer to your inquiry of whom and what kind of Horse Powers and Threshing Machines I purchased, I have to say that I purchased it from an agricultural dealer in Louisville, Ky. The castings have the words "Emery's Patent" on them. It was a good machine and I threshed eleven thousand bushels wheat, and one thousand bushels oats and rye, and my toll brought me one thousand dollars, after paying all expenses, all in the season of 1855. SAMUEL JOHNSON, Bonham, Texas, January 3d, 1856."

"Messrs. EMERY BROTHERS—I'm pleased with the operation of my Power and Thresher purchased from you this season, and have gotten out twenty-seven bushels of wheat per hour. I think I can beat the manufacturers in getting out wheat. My horses are light, weighing but 1.500 lbs. at most. Enclosed please find draft, &c., &c.—WM. T. HANNAFORD, Nansemond Co., Virginia, July 7, 1856."

"Messrs. EMERYS—I purchased of an agricultural dealer in Louisville, Ky., June. 1855, one of your patent Horse Power and Threshing Machines, being the third I have purchased of the kind. We commenced threshing July 5th, have been surrounded with several others of different patterns. Have gone through the length and breadth of their circuits and finished jobs after the most noted machines, and came off victorious in every neighborhood. The first machine I sold. With one of the others my youngest son threshed nearly fifty thousand bushels wheat and rye, and my oldest son with the other threshed ten thousand bushels, and then sold the machine. We could have sold the one we now have long ago, if we had desired to do so. This was all in the harvest of 1855. C. C. TAYLOR, Pulaski Co., Kentucky, Jan. 7th, 1856.

From Ira S. Bradley, Litchfield Co., Conn . Jan. 1, 1857.

"Messrs. EMERY BROTHERS—Your TWO HORSE POWER has far exceeded my most sanguine expectations. The THRESHER and CLEANER COMBINED, which I first received did not do as well as I desired, although much better than any other in this section of country, but after receiving the New Straw Carrier you sent me, it has proved a most perfect and satisfactory machine in every way equalling the power itself. Had I purchased it earlier in the season and it had operated as well as now, I could have made a clear profit of two hundred dollars over what I shall now this season, although I have had all I could do since I purchased it. My oxen which are light, I find preferable to horses, and the work seems to suit them. They have improved in condition during the whole time, nearly four months, since they have been worked on it.

From Sam'l B. Holt, Orange Co, Vermont. Jan. 15, 1857.

"Messrs. EMERY BROTHERS : I have used several different patterns of Horse Powers and Threshing Machines the past three years, and had much experience in repairing as well as using them. Some with cylinders too heavy, and not properly balanced, requiring a greater portion of the power of the horses to operate them, doing a proportionately less amount of work—many are cumbered by numerous bands, &c. &c. While with the EMERY'S PATENT TWO HORSE POWER and THRESHER & CLEANER COMBINED, which I purchased of you, a different state of things exists — the straw, chaff and grain can if desired all be cleaned and saved separate, and all with the force of four hands to attend it, the grain being cleaned fit for market.—Wheat at the rate of twenty bushels, and double the amount of oats per hour. To those farmers desiring a good machine, I would earnestly recommend Emery Patent Machines Complete, for *simplicity, ease* of *operation*, and *superiority* over all others, and would further say, that they are not over estimated or recommended by the manufacturers in their published circulars."

For Prices, Description, Warrants and Terms, see January number of the Albany Cultivator, or Full Descriptive Price Catalogue will be furnished gratis to all applications upon receipt of a three cent postage stamp to prepay the postage on them. EMERY BROTHERS,

March 1—w1t—m1t. Albany, N. Y

COLUMBIAN GUANO,

IMPORTED by the Philadelphia Guano Co. For sale by A. LONGETT, Agent,

Feb. 26—w4tm2t 34 Cliff-st., New-York.

Thorburn's Wholesale Priced Lists

Of Vegetable, Field, Tree and Flower Seeds for 1857,

WILL be mailed to DEALERS enclosing a three-cent stamp. J. M. THORBURN & CO.,
Jan. 28—w4tm1t 15 John-st., New-York.

SUGAR-CANE SEED!

EMERY BROTHERS have, at much expense and trouble, obtained a supply of GENUINE SEED of the **Chinese Sugar Cane,** or "SORGHUM SACCHARATUM," successfully grown, fully matured and sure to vegetate, from Mr. R. PETERS, of Georgia, which they will supply in strong linen packages, with full directions for its culture, for ONE DOLLAR, each containing sufficient quantity for one-fifth of an acre. All orders should be accompanied with TWELVE CENTS, or stamps, if to be sent by mail. Pamphlets, containing a compilation of reliable information, experiments and success of the Plant, since its introduction in this country, furnished gratis (postpaid) upon receipt of a three-cent postage stamp.

EMERY BROTHERS,
Proprietors Albany Agricultural Works,
Jan. 28—w4tm2t 52 State-street, Albany.

NEW CHINESE SUGAR CANE.

SEEDS of this much sought for and invaluable plant, in packages of 12½ and 25 cents each—(by mail prepaid 19 and 34 cents.) for sale by WM. THORBURN,
Seedsman and Florist, 492 Broadway, Albany, N. Y.
Jan. 22—w4t.m2t.

SWEET GERMAN TURNIP.

THOSE wishing to procure the seed of this incomparable late-keeping turnip (see Cult. for August, 1856,) can have an ounce sent by mail (prepaid) by sending me 18 cts. in postage stamps. A pound will be sent by express for $1.

EDWARD L. COY,
Feb. 12— West Hebron, Washington Co., N. Y.

BEES!—BEES!!—BEES!!!

THE subscriber will sell a limited number the coming spring. The price for No. 1 stocks of last year's swarms, will be $8. For packing on springs in cases and delivering to the R. R. Depot, 50 cents additional. When three or more are ordered, his "Mysteries of Bee-Keeping Explained" will be added gratis. They will be delivered about the first of April. Address M. QUINBY,
Feb. 5—w1tm1t* St. Johnsville, Montgomery Co., N. Y.

Durham Bulls and Suffolk Pigs.

I HAVE now for sale three Durham Bulls, viz:

"Locofoco," 35	months old—price		$200
"Man Friday," 13	do.	do.	350
"Ozark," 4	do.	do.	250

Their pedigrees are all in the third vol. of the American Herd Book. "Ozark" is by Mr. Thorne's celebrated Bull "2nd Grand Duke," (12,961).

Also seven pair SUFFOLK PIGS, 12 weeks old—price $30 per pair, boxed, &c.

Full description and pedigrees of the above stock will be furnished by THOS. GOULD,
Feb. 5—w4tm2t Aurora, Cayuga Co., N. Y.

OSIER WILLOWS.

THE subscribers are General Agents for GEO. J. COLBY, patentee of the machine for peeling willows, and will sell the best kind of Osiers on the most liberal terms, and give a Circular containing full directions for cultivating, market, &c., FREE to all. Address CARMI OSGOOD, Westford, Vt., or REUBEN OSGOOD, Fremont, Lake Co., Ill. Feb. 5—w8tm2t*

HAY PRESSES.

DEDERICK'S CELEBRATED PARALLEL LEVER Portable and Stationary HAY PRESSES, patented May 16th and June 6th, 1854—which (at about the same cost of transportation as a Railroad Horse Power and Thresher,) are now being forwarded to all parts of the country, and are in every case giving the most decided satisfaction; which (with two men and a horse) are warranted to bale from six to nine tons of hay per day, according to the No. or size of the press—and which are sold for from $100 to 175. For circulars, with full explanatory engravings, and numerous first-class references, appply personally or by mail to WILLIAM DEERING & CO.,
Dec. 11—weow&mtf Manufacturers, Albany, N. Y.

Manny's Patent Mower—Mower and Reaper Combined,

FOR THE HARVEST OF 1857.

THE subscriber has the exclusive agency for these machines, which are universally acknowledged to be the most superior mowers and reapers ever used. They are light, easily handled, and can be carried conveniently on any farmer's wagon—run on two wheels and have no side draft. We offer the following inducements to farmers to purchase these machines:

To any farmer or person selling one of these machines, we will give a copy of the Country Gentleman or Cultivator, or any other Agricultural paper in the United States, or the amount of the subscription in cash.

Retail Prices for 1857.

Single Mower, in Albany,	$116.50
Combined Machine,	126.50

Address RICH'D H. PEASE,
Feb. 5—w2tm2t 369 & 371 Broadway, Albany, N. Y.

New Chinese Northern Sugar Cane.

(Sorghum Saccharatum.)

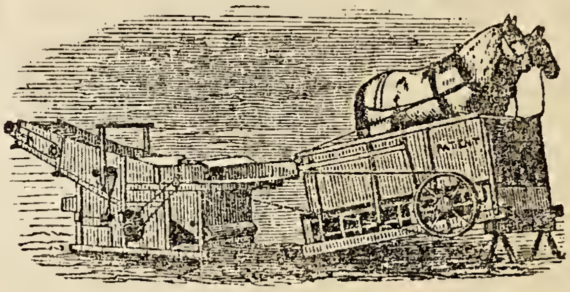
SEED of this invaluable plant, in packets at 12½ cents each, (by mail, prepaid, 25 cents,) or 75 cents per lb. in quantity.

CHUFAS OR EARTH ALMONDS—$1 per 100.
JAPAN PEAS—50 cents a quart.
NEW ORANGE WATERMELON—25 cents per ounce.
CHRISTIANA MELON.
KING PHILIP CORN.
SWEET GERMAN TURNIP, &c., &c.

With the largest and most comprehensive assortment of VEGETABLE, FLOWER and FIELD SEED to be found in the United States.

Catalogues on application personally, or by letter enclosing a three-cent stamp for return postage.

J. M. THORBURN & CO.,
Jan. 28—w4tm1t 15 John-st., New-York.



ADVERTISEMENT.

RAILWAY HORSE POWERS, Threshers and Cleaners, Threshers and Separators, Clover Hullers and Cleaners, Wood-Sawing Machines, &c., &c.,

MANUFACTURED AT SCHENECTADY, N. Y.

These machines have obtained an unequalled reputation in twelve different States—also in Canada and Australia. We annex a sample of statements received, of work done by some who have used them during the past season. Orders filled without delay.

G. WESTINGHOUSE & CO.,

Hartland, N. Y., Oct. 18, 1856.

G. WESTINGHOUSE & Co.:

Sirs—Your machine has given good satisfaction to all, I believe. I have threshed and cleaned 265 bushels of oats in two hours. I believe it is easier work for horses than traveling on the road. Have threshed almost every day since the first day of August. Expenses for breaks 62½ cents Yours, JOHN N. KNEELAND,

Victor, Ontario Co., N. Y., Jan. 18, 1857.

G WESTINGHOUSE & Co., Schenectady Ag. Works:

Gents.—As you requested me some time ago to inform you just what we could do with our Clover Machine, I will now do so. We have rubbed and cleaned thirteen bushels in a day, and we have rubbed six bushels in three hours. Our average is about eleven bushels per day of clean seed ready for market; that is more than they do here with six horses. In regard to the other machine (a Thresher and Winnower) I have not threshed much of anything but oats. I thrash and clean about 50 bushels an hour.

Feb. 12—w1tm1t Yours respectfully, C. FERRIS.

WANTED,

ON the first of April next, a MANAGER, accustomed to the care of improved breeds of stock, to take charge of a large farm situated in a healthy district, near Baltimore City.

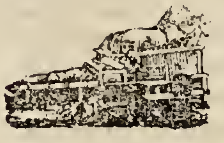
J. HOWARD McHENRY,
Jan. 28—w4tm2t Pikesville, Baltimore Co., Md.

Improved Short-Horns for Sale.

THE Herd of the subscriber being too large for the size of his farm, he wishes to dispose of four very superior cows, all got by imported bulls, and five heifer calves got by imported Bates' bull Lord Ducie (13,181) out of some of his bes) cows Also roan bull calf Beanfort, got by Lord Ducie (13.181t out of Daisy 7th by Duke, 444 A H. B., &c , &c. The cows for sale are very superior milkers, as are also the dams of the calves. Direct

DR. HERMAN WENDELL.
Oct 30—w&mtf Albany, N. Y.

Excelsior Railway Horse Powers, Threshers and Separators—Kell's Patent.



THESE justly celebrated machines are being sold in every part of this country, in Australia, Sandwich Islands, &c., and are giving universal satisfaction. They have taken premiums over all other machines of a similar kind at the several State and County fairs where they have been exhibited ; and in neighborhoods where they are well known, farmers will not use any other machines. We have large orders for these machines to go south at the opening of navigation, and farmers at a distance wishing these machines would do well to give us their orders early, to be sure of getting them. Orders punctually attended to.

RICH'D H. PEASE,
Jan. 15—w10tm2t 369 & 371 Broadway, Albany, N. Y.

ANIMAL FERTILIZER.

THIS is a new article manufactured at Barren Island. It is a very powerful and lasting manure, being made from the OFFAL of this city. It comes in bags or barrels. Price $50 per ton of 2000 lbs.

For sale by GEO. W. MAYHER, at the United States Agricultural Warehouse and Seed Store, No. 197 Water-street, (near Fulton-st.,) New-York. Jan. 28—w8tm3t

---

Guano and other Fertilizers.

GENUINE No. 1 Peruvian Guano,
Columbian and Ichaboe Guano,
Super-Phosphate of Lime,
Poudrette, Land Plaster and Charcoal Dust,
Bone Dust of different qualities.

For sale by GEO. W. MAYHER,
No. 197 Water-st., (near Fulton-st.,)
Jan. 28—w8tm3t New-York.

TO FARMERS AND GARDENERS.

THE SUBSCRIBERS OFFER FOR SALE 40,000 barrels of their

NEW AND IMPROVED POUDRETTE,

Manufactured from the night-soil of New-York city, in lots to suit purchasers. This article (greatly improved within the last two years) has been in the market for 18 years, and still defies competition. as a manure for Corn and Garden Vegetables, being CHEAPER, MORE POWERFUL THAN ANY OTHER, and at the same time FREE FROM DISAGREEABLE ODOR. Two barrels ($3 worth) will manure an acre of corn in the hill, will save two-thirds in labor. will cause it to come up quicker, to grow faster, ripen earlier, and will bring a larger crop on poor ground than any other fertilizer and is also a preventive of the cut worm ; also it does not injure the seed to be put in contact with it.

The L. M. Co. point to their long-standing reputation, and the large capital ($100.000) invested in their business, as a guarantee that the article they make shall always be of such quality as to command a ready sale.

Price, delivered in the city free of charge and other expense :

One barrel,	$2.00
Two barrels,	3.50
Five barrels,	8.00
Six barrels,	9.50

And at the rate of $1.50 per bbl. for any quantity over six barrels.

☞ A pamphlet, containing every information, will be sent (FREE) to any one applying for the same. Our address is THE LODI MANUFACTURING CO.,
Jan. 15—wcow8tm4t Office, 60 Cortlandt-st., New-York.

For Sale,

DURHAM YEARLING BULLS AND HEIFERS—also Calves and LEICESTER SHEEP.

RALPH WADE,
Jan. 1, 1857—m6t Cobourg, C. W.

The Horse, Most Noble Animal.

THAT indefatiguable laborer in behalf of true Veterinary Science, Dr GEORGE H DADD, has in press to be published by us during the winter, the most superb work on the Horse ever published in the world, entitled

The Anatomy and Physiology of the Horse.

In one large octavo vol. of 300 pages. Illustrated with 20 superb Anatomical Plates of the Horse, from a great French work.

Price with colored plates,	$4
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Orders for this elegant and valuable work in advance of publication, are solicited by the Publishers.

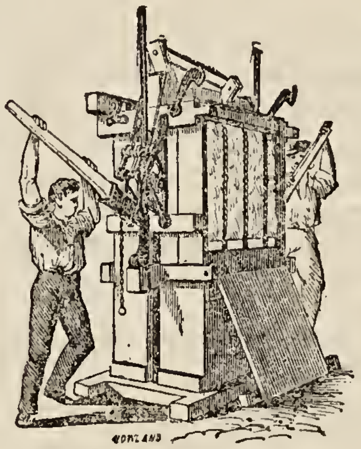
Also, just published, the Eleventh Thousand of

The Modern Horse Doctor, by Dr. George. H. Dadd.

Undoubtedly the best work ever issued from the American press on THE CAUSES, NATURE AND TREATMENT OF DISEASES AND LAMENESS IN HORSES. Price $1. Every man who owns a Horse, should own this book.

JOHN P. JEWETT & CO., Publishers.
Oct 30—w&m4t 117 Washington street, Boston.

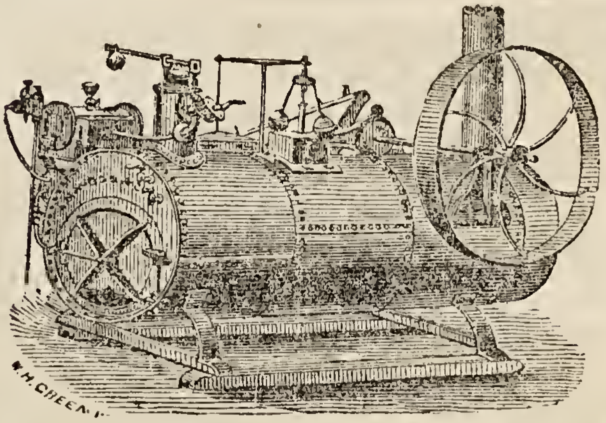
Ingersoll's Premium Portable Hay Press.



THIS Press combines greater power and portability, requires less labor, occupies less space, and costs less money than any other machine for baling hay ever offered to the public.

It is equally convenient for pressing cotton, hemp, hops, broom corn, rags, husks, &c. Samples may be seen at our warehouse, and circulars with cuts and full descriptions will be furnished upon application by letter or otherwise to

FAIRBANKS & CO.,
Scale Manufacturers, No. 189 Broadway, New-York.
Dec. 18—w4tm3t



PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

PRESENT LIST OF PRICES.

		Weight.
2½ horse power,	$225	1500
3 do	$275	1800
4 do	$310	2000
6 do	$520	3500
8 do	$680	4500
10 do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

Circulars can be had by addressing us as above

Jan 31—wtf—May 22—mtf A. N. WOOD & CO.

Contents of this Number.

THE FARM.

Our Cattle Shows—their Aims and Objects, ... 73
Beet-Root Sugar, ... 76
Entomology, by Dr. Asa Fitch, ... 77
Starch from Indian Corn, ... 78
Chinese Sugar Cane, by G. W. Durant, ... 78
Cabbage, Turnip and other Root Crops, ... 79
Pratt's Ditch Digger, ... 79
Rhode Island State Ag. Society, ... 79
U. S. Ag. Society's Winter Meeting, ... 80
Culture of Indian Corn for Fodder, by J. Whitney, .. 81
Vitality of Grass Seed, by S. E. Todd, ... 81
Culture of Root Crops, by J. Wallace, ... 82
Cheap Way of Cutting Ditches, by E. Wilson, ... 82
Salt for Crops, by J. C. C., ... 82
Culture of the Sumach, ... 82
Mills for Grinding Sugar Cane, ... 84
A Few Facts about Farming, by J. W. C., ... 84
Plan of Barn with Basement, by S. Dearing, ... 87
Water Wheel for Threshers, ... 87
Use of Lime on Limestone Soils, by L. C. Ball, ... 88
Belmead, ... 89
Root Cutters, ... 90
Lime on Grass Lands, ... 90
Answers to Five Questions, ... 91
Applying Hen Manure, ... 91
Notes for the Month, ... 92
Annual Meeting N. Y. State Ag. Society, ... 93
Inquiries and Answers, ... 94

THE GRAZIER.

Breeding Cattle and Sheep, dy J. R. Chapman, ... 75
How to Destroy Lice on Calves, by C. A., ... 80
China or Tartar Sheep, ... 82
The Best Breeds of Cattle, by J. Talcott, ... 85
Covered Yards for Cattle, by N. H. Allen, ... 86
Devon Cow Edith, ... 88

THE HORTICULTURIST.

Cultivating Hill-side Orchards, ... 73
Autumn Sweet Apples, ... 73
The Orange Raspberry, by C. Downing, ... 78
The Cranberry as an Ornamental Plant, by H. L. D., .. 83
The Orange Raspberry, by A. A. Bensel, ... 83
Cling-stone Peaches, ... 86
Re-grafting Old Orchards, ... 86
The Concord Grape, ... 90
Market Fruits for Wisconsin, ... 90
Green and Yellow Newtown Pippin, ... 90
Hot Beds and Pits, ... 83

THE POULTRY-YARD.

White Chinese or Swan Goose, by W. D. Barnes, ... 89

THE HOUSEWIFE.

Ohio Cup Cake, ... 83
How Kentucky Bacon is Cured, by I. P. Shelby, ... 89
To Destroy Rats and Mice, by C. E. Goodrich, ... 91
To Harden Tallow for Candles, by F., ... 91

ILLUSTRATIONS.

The Cranberry, ... 85
Plan of Barn, ... 87
Water Wheel, ... 87
Devon Cow Edith, ... 88
Belmead, ... 89
White Chinese Goose, ... 89
Root Cutter, ... 90

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME.—Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS, all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

R. L. ALLEN,

Feb. 26—weow&mtf 189 & 191 Water-st., New-York.

RURAL PUBLICATIONS.

PREMIUMS OFFERED FOR 1857.

New Volumes and Increased Attractions.

LUTHER TUCKER & SON, ALBANY, N. Y.,

PUBLISH

The COUNTRY GENTLEMAN—Weekly—a Journal for the Farm, the Garden and the Fireside. New Volumes commence the first of January and July—each number consisting of **Sixteen Large Quarto Pages.** Two Dollars per annum. "Without question The Best Agricultural Paper in the United States." "By Far, at the head of the Agricultural Journals of the United States."

THE CULTIVATOR—Monthly—a Magazine of thirty-two octavo pages, now in its **twenty-third** year, and to commence with January next, the 4th volume of its Third Series. It is now "made up" from the Country Gentleman, and though furnished at the low price of Fifty Cents a year, continues to maintain the rank it has ever held as the most **Practical Farmer's Paper,** and the ablest Scientific Authority in its peculiar sphere.

TERMS OF THE CULTIVATOR.

One Copy of the Cultivator, ...	$0.50
Ten Copies Cultivator and ten of the Rural Register, ...	5.00
Twenty of each (*with an extra Copy to the one who sends us the Club,*)	10.00

☞ Subscribers in the British Provinces must, in case of Clubs, invariably add to the foregoing terms *eight cents each*, for the payment of United States postage on The Cultivator and Register. Thus: Ten copies of The Cultivator and Register will be $5.80—Twenty do. (and one to Agent,) $11.68.

The Illustrated Annual Register of Rural Affairs—An annual volume of 144 pp., duodecimo—illustrated with 150 engravings. Number Three, for 1857 just issued, is even superior to its predecessors, and like them, forms a convenient repertory of more Practical Information, interesting to every Country Resident, than can elsewhere be obtained at Four Times the Cost. Price Twenty-five Cents. Nos. 1 and 2, for 1855 and 1856, same price. Per Dozen, $2, sent post paid.

Premiums to Agents.

We make the following offer to those sending us the largest amount in cash subscriptions to our Journals for the year 1857, previous to the 10th of April next:

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FORBES. THE CULTIVATOR. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES

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Quantity and Value of the Manure of Cattle.

Several inquiries having recently been made as to the *quantity* of the droppings or solid excrements of cows and cattle during the winter months, and as to the *value* of the same, we have been induced to make some researches upon the subject, with a view to ascertain what *data* have been put upon record, or given to the public, in the form of facts or careful experiments and accurate observations bearing upon the questions named. *Such* facts, it will be readily admitted, are the only safe and reliable foundation upon which correct opinions upon this subject can be based, and they form also, the best or only valuable test whereby the truth and practical value of any *opinions* upon the subject can be determined. These considerations have induced us to prefer the task, to the much easier one of stating our own *opinions*, or those generally received in regard to the matters of inquiry. That all interested may have an opportunity of forming their own opinions, or deducing their own inferences, as also of bringing any opinions which they may meet with, in their reading or conversation, to the true touchstone or test, we proceed to the statement of some of the more valuable of these facts which we have been enabled to collect.

In the third volume of "*The Agriculture of New-York*," by EBEN. EMMONS, M. D., we find an account of some experiments undertaken for the double purpose of ascertaining the influence of food on the quantity and quality of the milk of a cow, and on the quantity and quality of the solid excrements. The cow employed in the experiments, was a small one, of the variety called the Dutch breed, her weight being, in November and while yet at grass, 800 lbs. On being confined to the stable, she ate from 21 to 27 pounds of good hay per day. The amount of hay consumed in one week, last of Nov. and first of Dec., was 155 lbs., or about 22 lbs. per day. The water drank during the same week amounted to 298 lbs. and 12 ozs., or a little over 42 pounds per day. The solid excrements amounted to 309 lbs. and 8 ozs., or a little over 44 lbs. per day.

A calf of this cow, 7 months old, and weighing 348 lbs., fed in the same way at the same time, ate of hay 85 lbs. and 4 ozs. in seven days, or about 12 lbs. and 3 ozs. per day; drank during the time 120 lbs. and 12 ozs. of water, equivalent to 17 lbs. per day; and made 144 lbs. and 11 ozs. of excrement, which is equivalent to a little over 20 lbs. per day.

For the purpose of comparison, it is stated that a large horse consumed 31 lbs. of hay per day, and made solid excrements to the amount of 62 lbs. and 8 ozs. during the same period.

In the first volume of the *Journal of the U. S. Ag. Society*, we find a short paper giving an account of some experiments in feeding by JNO. BROOKS of *Princeton, Mass.* The experiments were instituted to determine the comparative value of different kinds of food for producing milk, and the proportion of solid manure to that of the hay consumed. The former we omit, and give the latter only in a condensed form.

Several cows, heifers, and calves, weighing in all, live weight, 14,567 lbs., were fed five days on 277 lbs. of cut hay daily. They drank daily 887 lbs. of water, and dropped daily 668 lbs. of solid manure. The proportion, in this experiment, between manure and hay, was 2.41 lbs. of the former for each 1 lb. of the latter consumed.

A second trial of five days with the same cattle, gave the following results:—Hay per day, 352 lbs.; Water per day, 868 lbs.; Manure per day, 860 lbs., or 2.44 lbs. for 1 lb. hay consumed.

A third trial was made with another set of cattle, whose live weight amounted to 9472 lbs., with the following results:—Hay, cut, per day, 240 lbs.; Water, per day, 542 lbs.; Manure, solid, per day, 594 lbs., or 2.47 lbs. of manure for 1 lb. of hay consumed.

The average of the three trials gives 244 lbs. of manure for 100 lbs. of hay.

In reference to the researches which we have instituted to determine the *quantity* of manure made by cows, cattle, &c. per day, week or year, it seems of some importance to remark that the determination of this point has hitherto been but seldom attempted, and that when it becomes a matter of interest, in a pecuniary or any other point of view, to ascertain it even approximately, the *data* for so doing cannot readily be found. Nevertheless the occasions are not unfrequent when it would be a matter of considerable importance to determine the amount of manure which the various animals on the farm are capable of producing. "As yet, however," says Prof. ANDERSON in the Trans. of of the Ag. Society of Scotland, "we are singularly deficient in precise information on this point. There are numerous analyses of farm-yard manure, and a few of the dung and urine of different animals; but so far as I know, the experiments of Boussingault are the only ones in which an attempt has been made to determine the quantity of the different constituents of the dung and urine which are produced in the course of twenty-four hours." Upon the suggestion of Prof. A. this point was attempted to be determined by a large dairy farmer, according to whose observations a cow of the average size yielded 27 lbs. of dung during the night, and 33 during the day, or 60 lbs. in all. This was found to be the average quantity over a pretty long period. The quantity of urine in the twenty-four hours, according to the same observer, was 18 lbs., and a gallon was found to weigh 11 lbs.

It was our intention in reporting the results of our researches in respect to the quantity and the value of the manurial matter furnished by cows, cattle, &c., to keep these two things distinct and apart, and to finish our reports as to *quantity* before commencing with those which pertain to *value*. But as the analyses, made by Prof. Anderson, of the manurial matters whose quantity has just been given, are given in brief space, and may be more interesting in *immediate connexion* with the statement as to quantity, saving, also, the trouble of repetition or reference in the future, we have concluded to make a statement here of the results of his analyses, and of his estimates of the value, as a fertilizer, of the whole of the manure furnished by a cow of average size during a year.

Taking, then, the above data, the quantity of the principal substances, possessing manurial value, yielded in each day or twenty-four hours, appears to be as follows:

Ammonia.

In the urine	511.8	grains.
" dung,	1470.0	"
Total,	1981.8	= 4.33 ounces.

Potash.

In the urine,	1279.2	grains.
" dung,	420.0	"
Total,	1699.2	= 3.80 ounces.

Phosphoric Acid.

In the urine,	24.6	grains.
" dung,	1204.6	"
Total,	1228.8	= 2.81 ounces.

The other chemical constituents of this manure have so small a value, that it seemed scarcely necessary to take them into account in estimating its value as a fertilizing agent. Taking, then, the above quantities of these more important constituents of the manure of cows or cattle,, and multiplying them by 365, we obtain as the yearly product,—

Of Ammonia,	103.3	lbs.
Potash,	88.5	"
Phosphoric Acid,	64.0	"

If now we take the ammonia at the price attached to it by Prof. S. W. Johnson, in his article on Fish Manures in our last year's volumes of Co. Gent. and Cultivator; the phosphoric acid at the price attached to it by the same gentleman; and the potash at six cents per lb., the annual value of the excretions of one cow will stand as follows:—

103 lbs.	of	ammonia (fractions omitted,)	$16.48
88	"	potash " "	5.28
64	"	phosphoric acid,	1.28
		Total value,	$23.04

As Prof. Johnson admits, however, that his estimates may be conformed a little more closely to those which prevail in England, let us calculate according to the latter, and we obtain a valuation as follows:—

103 lbs.	of	ammonia, at 12 cts. per lb.,	$12.66
88	"	potash, at 6 cts. per lb.,	5.28
64	"	phosphoric acid, at 3 cts. per lb.,	1.92
			$19.86

In round numbers, the annual value of the dung and urine of a cow, according to these analyses and estimates, ranges between $20 and $23.

Leaving remarks upon these estimates of the annual value of the manure yielded by cows, cattle, &c., until we come to treat the subject of value, we will now conclude our observations upon that of quantity, so far as the experiments we have reported furnish *data* for conclusions. Experiments and observations with a view to determine this matter have been seldom made, or at least seldom given to the public, for those which we have reported are all that we have found, at least in any detail. In Johnston's Lectures on Agricultural Chemistry, we have found, indeed, some results of similar experiments or observations in a tabulated form, but none with any details as to particulars. The observations by Block, there referred to, agree very nearly with those which we have reported, making the consumption of 100 lbs. of hay to yield 275 lbs. of fresh manure. In the observations we have reported, the proportion of manure to hay ranges from 200 to 247 lbs. for each 100 lbs. of hay consumed. For facility of calculation it might be considered as nearly correct, that for each pound of dry hay consumed two and a half pounds of solid manure will be produced. Now, as cows and cattle under the weight of 1,000 lbs. will consume on an average about 25 lbs. of hay, or the equivalent thereof, per day, the product in manure will be about 62½ lbs., or very nearly what was found to be the average of a medium sized cow as reported by Prof. Anderson. Larger animals will consume more food and yield a larger quantity of excrementitious matter, but about in the same proportion.

For facility in calculations, and as an allowance for the diminution of weight caused by the drying up of some of the watery portion of the droppings, it would be near the reality to reckon the solid manure of a medium sized cow or ox at 50 lbs per day, or four and a half tons during the six months of winter.

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Cement Water Troughs.

Messrs. Editors—Since my former article to you on concrete blocks of artificial stone for building, (Co. Gent., vol. ix, p. 131) it has occurred to me that among the various uses of concrete about a farm-house, an excellent water-trough may be made of it. Lay a solid stone foundation in the middle of the barn-yard, *set* a cement bottom; then with an outside and inside board suitably arranged, build up the sides and end of the trough—build to proper height, smooth off the upper edges, line inside with hydraulic cement, round off with cement the inner angles, let it dry, and you have a perfectly indestructible cleanly watering-trough—costs but a trifle, lasts forever, and cattle wont gnaw off the edges—lime, sand, and small cobble stones. J. E. S. *Barre, Mass.*

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Potatoes.—I have seen several notices of amounts of potatoes raised from a given quantity, and thought perhaps it would not be uninteresting to hear from a subscriber in Illinois, whose facts are far ahead of any statements yet made in your paper. I planted in native prairie soil, (it being the first crop, and without manure,) one pound of potatoes last spring, from which I with ordinary culture, harvested in the fall two hundred and thirty-nine and one-fourth pounds of a good marketable quality. The actual yield was some more than this, as a few were frozen and thrown away when dug. This, you will perceive, is nearly 240 bushels for one planted. The name I cannot give you; they are white and of a proper size for cooking purposes. O. H. Hazard. *Freeport, Ill.*

Advice in Farming.

A farmer in Chester Co., Pa., who has a good farm of 92 acres partly paid for, informs us that he finds his family expenses annually increasing with a growing family, and that it requires exertion and economy "to make both ends meet." His land yields about sixty bushels of corn per acre, 15 to 25 of wheat, and 30 to 50 of oats.

He inquires, first, as to the propriety of removing west, but dislikes to break up time-honored associations. On this point he is the best judge—we may merely remark that, a western residence has its advantages and evils; its advantages are cheapness of purchase and fertility; its disadvantages are, remoteness from market, and consequently low prices; scarcity of labor; deficiency of timber in many places; cost of removing; and if new land is bought at a low price, the cost and labor before all the desired household and farm buildings are provided. On the whole, the advantages of each appear *generally* to be about equally balanced; and if the same degree of economy and labor were practiced at the east, as necessity alone impels at the west, about equal results would be obtained.

He inquires, secondly, as to the probable profit of the following mode, namely, to convert his farm chiefly into grass land, and render it as productive as western prairie. Instead of selling, as heretofore, all the grain he could raise, he proposes to buy all and raise no more except corn and millet for cattle feed—to keep but few animals before harvest, so as to save plenty of grass for hay—and to buy a heavy stock of western steers early in autumn, to fatten, and sell again in winter. He thinks that by chopping his fodder, grinding the grain, and steaming the food, he may fatten from 50 to 100 head yearly, and get from 20 to 40 dollars advance on each. He would thus secure a large amount of manure, and by the addition of bones, keep the land in the best condition. Most of the labor would be done at a season when labor is cheap. He wishes to know the value of cooking food for cattle.

So far as we may judge, we would not advise so sudden and complete a revolution in the existing mode of farming. Untried systems should always be adopted cautiously, until actual trial proves their value. It is best in all cases to feel one's way. There are often unforeseen difficulties, not discovered till a full experiment is made. Our correspondent has not probably kept enough animals to maintain alone the best condition of his land; and now he proposes the other extreme. Mixed husbandry, well conducted, is always the most profitable. But it is better to have too many than too few animals. An average of 60 bushels of corn per acre, and of 20 bushels of wheat, as with the present management, are fair crops, and we would not discard a wheat crop of this amount, with increased means of fertility. The experiment may be tried the first year with ten or fifteen western cattle; and if not so successful as expected, there will be something to fall back upon; but if the experiment proves profitable, the number may be increased—but in any case we would not discard a proper proportion of grain crops. The success of fattening the cattle will depend on the relative prices of the western animals, and of the same after they are fattened; and fluctuations in these prices might in some years reduce or even destroy all the profits.

Experiments have been made with steaming or otherwise cooking food for cattle, but they have not warranted the expenditure in fixtures, labor and fuel. Cutting and grinding have however proved of much importance. Cooking food for swine, unlike that for cattle, has been found to greatly increase its value.

Renovating Old Pastures.

Messrs. Editors—How to renovate old pastures, is becoming daily a more important question to us Connecticut farmers, on poor, stony, hilly land; and we must find some better way than has been in use heretofore. Will you or some of your correspondents favor me with advice.

I have 50 to 60 acres of hill pasture, with a constant tendency to white-birches, briars and brakes, and wish to adopt some method of renovating a part of it yearly, but am much at a loss how to do this. The soil is not as poor as usual hereabouts, and has a kindly eastern exposure, sheltered from cold winds; but it is remote and somewhat difficult of access, on a steep rocky hillside. My predecessor drew manure up the long hill, and by dint of hard labor, obtained a decent crop of corn. Part of the land was under cultivation two or three years, was then seeded down, and is now (some five years) very indifferent pasture. Some parts are too rocky for plowing, but those are usually moist with springs, and, I hardly need add, grow fern and brake faster than I can cut them. The distance and the difficulty of access forbid the use of stable manure, even if it could be spared for the purpose, and I seek some other means of renovation. Ashes I can procure—both leached and unleached—at a cost of about 15 cts. per bushel; and also some quantity of *horn dust* and shavings, but these latter are of course expensive. The land would perhaps start a small crop of buckwheat, rye, or even clover, and various methods of green manuring have occurred to me, as sowing clover, using plaster and ashes freely as soon as well up, then plowing in early, in hope of a second crop; or sowing rye as a second crop for spring pasturage; or turning hogs on the clover before plowing in, and getting a crop of turnips.

Clover is, I think, our best green manure. Rye has not to my knowledge, been used here in this way, and my experience of buckwheat is unfavorable.

Is it best to continue green manuring for two seasons, or to plant hoed crops the second year? Shall I use ashes solely as a top-dressing, or plow it in? And in what quantity? Will it pay to use guano or horn-dust, and if so, how shall they be applied? I do not care to raise crops on this land, as I have more close at home than I can keep in good heart, though my resources are more ample in way of manures than usual in the country, but I desire to keep it in pasture with the least expense or care. Perhaps I ought to state that our subsoil is very open—gravel, or often round stone, more seldom sand, requiring constant renewal of manuring, and for grass land, re-seeding, every two or three years. H. C.

In plowing under clover, we would recommend that it be done the second year, or the year after seeding, and that ashes and plaster be used in connection with raising clover. Guano may be tried by way of experiment, and is best applied as a top-dressing in autumn, but may do if sown very early in spring, or as soon as the frost is out. Two or three hundred pounds per acre will do to begin with. Ashes are high as a manure at 15c. per bushel, and at this rate we would not propose more than 30 or 40 bushels per acre. It may, like guano, be applied as a top-dressing, in autumn, winter, or early in spring. A portion of stable manure may be used in connection with these fertilizers, but it should be applied in autumn as a top-dressing and finely spread, so as to become thoroughly soaked into the soil by the commencement of growth. Horn dust should be plowed in when used, and must be looked upon as an experiment merely, although it has often produced a great increase in growth. There is no crop nearly equal to clover for green manuring, but probably a year or two of other crops should intervene before re-seeding. We are inclined to think, however, that scarifying and top-dressing with manure, guano, ashes, plaster, &c., with heavy re-seeding when necessary, may be sufficient. However, there is so much difference in soils, &c., in different localities, that a trial only can determine this point.

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Roup in Poultry.

This insidious disease, which carries off so many fowls, is evidently analagous to the distemper in the dog and the horse. It is a species of influenza which generally arises from exposure to cold and wet, after having been previously, perhaps, too much protected from the same. It is for this reason that fancy fowls which are too well taken care of, are so often affected by it. We say too well taken care of, because considerable experience has taught us that confining fowls in a warm place, without much circulation of air, is far more injurious than ordinary exposure. By all means let them have a shed with a good roof to keep them dry, and with a southern exposure; but do not shut them up in a warm room where they are obliged to breathe the same air again and again. This is of itself sufficient to produce disease, and often causes Roup. There can be no doubt that the Roup is contagious, and perhaps also infectious, as fowls have been known to exhibit symptoms of it very soon after being put into yards from which other sick fowls had been removed. Drinking out of the same vessel with other fowls who have it, should if possible be prevented. A small piece of assafœtida should be kept at all times in their water. All fowls are fond of it, and its effects on them both as a prophylactic and otherwise are good. The symptoms of Roup are almost always, running at the nose, though like an ordinary cold in the human species, it takes two forms, and settles either in the head or in the throat. It frequently commences by running at the nose, and after a while leaves the head altogether for the throat. In half grown chickens it frequently attacks the eyes until they suppurate and are entirely destroyed; and this may be the case with older fowls. When there is from the first no running at the nose, but the disease is entirely in the throat, the first symptoms will be a hacking noise made by the fowl, the result of an endeavor to clear its throat of the phlegm which is there collected.

The remedy, and the only effectual remedy, is a solution of alum in water, or what is better, of alum in vinegar and water, or pure vinegar unless very strong. The vinegar acts as a detergent in clearing away the phlegm, while the alum acting as an astringent upon the inflamed mucous membrane, produces at once the most beneficial effect. Other medicines which have been highly recommended have no doubt a good effect, chiefly as alteratives, among which calomel and sulphur are the best, but this application arrests the disease at once, and we have seen fowls which were almost strangled relieved by the first tea-spoonful. The alum should be finely pulverized and then the vinegar and water saturated with it. If the disease attack the nose and eyes, use the same remedy: wash the roof of the mouth and the nostrils with the solution, and as in the first instance pour some into the throat. Two extensive poultry breeders of our acquaintance, find turpentine effectual in this disease, putting it in the water which the fowls drink and dropping a little on the head, in the nostrils and in the roof of the mouth, when the purulent matter will be found collected so that it can be easily removed with a stick. Turpentine is an effectual preventive of the gapes, and we have found it beneficial in the roup, but there is nothing so powerful, so instantaneous, and so effectual in checking the progress of this dreadful disease in all its forms as a saturated solution of alum in vinegar and water. H.

The Thorn for Hedges.

Eds. Cultivator and Co. Gent.—That the want of fencing materials for farming purposes, is on the increase, with the division of larger estates into smaller ones, and the necessity for closer and better tillage, is evident. Where there are stones sufficient for this purpose, probably nothing will supercede their use. In certain localities, however, the materials for making enclosures forms no small item in the expenditure of the farmer. Much labor is required in all cases.

In the Jan. No. of The Cultivator, Mr. Rudisill makes an inquiry as to raising the common thorn from the seed. The answer of A. B., in the same No. is no doubt correct as to the English thorn, and would apply to all the species, as it is probable their seeds are alike of a bony hardness; but the process seems more tedious than necessary. If the common thorn is as frequently found in Mr. R.'s region as it is here in neglected fields and along the roadside, I would suggest to him that the berries or fruit be gathered when fully ripe and mixed with fresh cow manure and placed in a sunny spot in order to undergo a fermentation; letting them remain also during the winter exposed to the frosts. By this process I should think the seeds would sprout in the spring. I have not tried this plan, but judge it would be successful from the fact that I have observed young sprouts or seedlings rather, shooting up from the fecal deposite of the cow. Whether the fruit had been eaten or accidentally placed there, I think would make no difference. I have no doubt that the succeeding fermentation, together with the alternate thawing and freezing during the winter, would cause the shell to crack, and allow the kernel to germinate.

One other suggestion. Try the cuttings. From the extreme hardiness of the plant, and the tenacity with which it retains life, the slips would very likely, with a little care, strike root, and if so this would be the speediest way of getting the plants.

As to the value of the thorn for hedges, it is, I think, undervalued or overlooked. Other things being equal, the plant which is indigenous to the locality in which it is required, is the best. The English plant, not being a native of this country, although to a small extent naturalized, could not be expected to thrive here as well as in its more even tempered nativity. If I am rightly informed, practice proves this view to be correct. Should it prove perfectly hardy, there is nothing in other respects to commend it as superior to our native species. Of these last, there are six species described as being indigenous to the northern and middle states, each of which embraces many varieties, or slight shades of difference. Like the apple and pear, to which the thorn is closely allied, there can hardly be found two seedlings alike in habit of growth, fruit, foliage, &c.

The Cockspur thorn is said to be the best species there is in this country for hedging. My opinion is that any of them, which are armed with spines or thorns, will make a better hedge, (where they are found growing naturally about waste places,) all things considered, than any other plant with which I am acquainted or have heard of. Any person who has seen a full-grown tree, could not doubt but that a hedge formed of them would be a thorough protection against man or beast. Its size, sturdiness, and habit of growth, (the branches putting out near the ground, especially if clipped at the top,) are all that could be desired as to hardiness. They are found growing in all situations and soils; and it is rare to see one dead, either from situation, or from the ravages of mice or insects, or any other cause. They do not sucker unless the roots are out of the ground. The fact that animals brouse upon the young shoots would be no objection when the hedge has got to the proper height.

I have a few rods of the common, and also a few rods of the Buckthorn. Being unable to get the former from the nurseries, I went to the fields and had the roots dug up, first cutting off the tops about two inches from the ground. Not having much time to oversee the work, the roots in part were almost destitute of small fibres, and they were carelessly planted in the spring. The following summer, being the extremely dry one of 1854, I supposed they would all die, but to my surprise not one in a hundred failed to live. It now gives promise of making me a good hedge, with very little trouble to keep in repair.

There is one other plant which I have thought might form a good hedge on small premises, about gardens for instance, and that is the Prickley Ash. I intend to transplant a few in the spring, to see how they will bear clipping with the shears. G. P. R. *Goshen, N. Y.*

My Artificial Stone House.

Ees. Country Gentleman—I wish to say some words to your readers upon the best and cheapest material for building houses, and the mode of use. I like the material used and recommended by Fowler and others—artificial stone walls, made of lime, sand, and stones—that is, cobble stones, fragments of brick, coal cinders, &c. But I object to the usual method of using it in what are called "grout" houses, cement houses, &c. It is sloppy and annoying work to build it up in troughs, as is usually done. The fluid runs down over the walls, and each layer does not harden fast enough to build on, as soon as is often wished.

I use the same material, and propose to obviate these objections by a neater and pleasanter mode of use, which shall be easier and stronger work than the usual mode. I make my material into blocks of stone, and build my house of these. Thus, make cheaply some 20 or 30 boxes, of sides only, without top or bottom, of proper size, say two feet long, one foot high, and 14 to 18 inches wide. These are the dimensions of the future blocks. Make up, of a morning, sufficient material in a bed, fill up all the boxes, smooth the tops, and go off. Next morning lift off the boxes; let the blocks stand to dry and harden; set the boxes in a new place, and fill up as before. Do this under a shed, or if out-doors, cover over the blocks during the first rains, and they will soon harden enough to use. In this way any Irishman may, in twenty-five mornings, at 50 cents or less, each, *hew out* stone enough for a large house.

Then build your house, as any one would, of stone. The blocks for first story may be 14 or 16 or 18 inches wide, and for second story, 10 or 12, narrowing the mould boxes by nailing a board or two inside, or sawing the ends narrower. Walls so built are dry; but they may be made still more so, and warmer if possible, and still cheaper, if any one *could* wish it, by putting a wooden cylinder or two into the mould-box, and knocking it out after the box is lifted off, thus making dead air in the wall. Besides this, the wall is of course to be furred and lathed and plastered inside. Of course some blocks are to be made solid, for corners and ends of the walls.

Given the dimensions of your house, and one can easily calculate the number of blocks needed, and any farmer's boy may make them.

In laying the wall, if, in order to bring a flush wall for door or window, it should be necessary to leave a few inches between some blocks, the space may be easily filled by pieces of brick or regular stones well mortared in.

I commend this as the *best* plan for building a cheap and durable house—better than brick, as good as stone, and lasts forever. If nice finish is needed, cement and color the outside wall, and lay it off by lines, like stone, as indeed it is.

If any one doubts this plan, try it on a smoke-house, or hog-pen, or shed of any kind, or, indeed, a stone wall.

No rats infest this house, no storm can shake it, no wind whistle through it. Dry, tight, warm in winter and cool in summer, it is the cheapest, strongest, and best.

A good proportion of the ingredients which Fowler and all others recommend, is—say 10 bushels or barrow loads of lime, 20 of sand, and 70 of stones, &c., and any quantity of water. I take it for granted your readers understand something of the gravel wall plan. I write merely to advocate the block stone plan—the same material, but in different shape. One can see how cheap must be the walls of a house with only one-tenth lime, and that so cheap, and the other materials nine-tenths, which costing nothing. J. E. S. *Barre, Mass.*

Best Time for Pruning.

Messrs. Editors—The inquiry made by E. Dennison at page 31 of this volume, "Which is the best time to trim?" is—(as of course we must suppose he means by "*trim*," "prune")—a very usual interrogatory to the pomologist. He will find, when he owns many fruit trees, that the best time to prune is when he has most leisure, and whenever he has his knife in his hand. In the spring and summer the wounds will begin to cicatrize quickest; but pruning cannot then be so rapidly performed, owing to the mass of foliage and to the difficulty of arriving at a decision what to cut away, as rapidly as can be reached in the season when leaves have fallen. I would recommend never to saw off a limb at right angles, but obliquely. It promotes a quicker covering of the incised surface by the young bark.

Let me suggest as a substitute for shellac dissolved in alcohol, as a protecting coat, a mixture that I have found very adhesive and efficacious:—Fresh cow manure and clay, with an egg or two and some molasses thrown in; the whole reduced to the consistency of thick paste or thin mortar, and applied with a small trowel or a knife with a very broad blade. The shellac solution is undoubtedly the cleanest and most convenient to apply, but shellac is not always at hand in the country. E. L. R. *Baltimore, Md.*

Indian Corn after Buckwheat.

Messrs. Luther Tucker & Son—In the Cultivator of 1856, page 319, you notice "the injurious effects of *beech*-wheat on a succeeding crop of corn;" but you suggest no remedy. Some years since a friend of mine had a field of corn, a part of which had the previous fall been in *beech*-wheat. The part that had been in *beech*-wheat came up yellow and had a sickly appearance, while the other part of the field was of the richest dark green, and considerably higher than the *beech*-wheat part. About the first of June my friend applied plaster to the hills of the sickly corn, but had not enough to plaster all the *beech*-wheat part. In a few days the plastered corn was as rich a dark green and looked as healthy as any in the field. The few rows not plastered remaining yellow, he procured plaster sufficient to put on those few rows, which soon joined their neighbors in exemplifying the efficacy of plaster. Wm. C. Hoffman. *Pomona, Frederick Co., Md.*

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Mildew on the Gooseberry.—I would mention that a few years ago I procured some of the best kinds of gooseberries, and for one or two years had good crops. Since then they blast as soon as the fruit is formed, and the bush also partakes of the disease; but I would mention that two branches that lay flat upon the ground had fruit on them, while all on the upper part of the bush mildewed as soon as formed. W. Graham. *North Bay.*

Value of Leached Ashes for Grain Crops.

Reading an article and inquiry in regard to leached ashes in a late number of the Country Gentleman, and having used them to some extent, we will give our experience and opinion, and leave it to others to judge of their worth.

Our first experiment was on a piece of about an acre, which we were fitting for corn, and preparing for a "premium" crop. The land was well manured, and plowed deep, and then some ten or twelve loads of leached ashes, of thirty bushels to the load, spread as even as possible, and then thoroughly harrowed. The corn was planted in drills, three and a half feet apart in the rows, and from five to six inches in the drills. The corn came up well, and made the most rapid and vigorous growth I ever saw until about the time the ears were fairly set, when one of our severest droughts commenced and lasted so long that no after rain was of any help to the crop. It was planted too thick for the season, yet I got the heaviest growth of stalks I have ever seen, and about eighty bushels shelled corn per acre. The corn was cut up in Sept. and drawn off, and the ground plowed once and sowed to wheat. The wheat seemed to make the same rapid growth as the corn; the heads long, well filled, and remarkably plump, yielding easily a bushel to ten sheaves, and at the rate of forty-six bushels to the acre. Now this field had been long cultivated, and we were familiar with its crops; and though we may be unable to convince others, yet we are satisfied the ashes were the main cause of the rapid and luxuriant growth as well as the superior quality of the grain.

The effect from the ashes was evident in a number of succeeding crops, both of wheat and corn. It is true the whole field was treated with ashes, (being a a small lot cut off from other fields by a road,) consequently there was no chance for comparing with land not ashed, yet the effect was so marked as to leave no doubt as to their value as fertilizers.

Our next trial was on a piece of winter wheat, and here we had a fair chance for comparison. In the winter, when the ground was frozen hard, on a portion of the field leached ashes were evenly spread at the rate of eight or ten loads to the acre. When the wheat started to grow in the spring, the ashed part made the most rapid growth, so much so as plainly to be noticed; and at harvesting the difference in the standing grain was still more evident, it standing thicker, taller, with longer heads, and better filled with a plumper berry, and giving a much better yield both in quantity and quality. Now in this field, though the treatment otherwise has been precisely alike, before and after the application of the ashes, whenever a crop of corn or wheat was growing, the exact line where the ashes were left off, was plainly visible four or five years after their application.

Again, in another field, on a spot where ashes were left after leaching for "salts," as was the practice when our lands were first cleared, some forty years since, the effects are still plain and unmistakable; corn, wheat, or oats, still growing rank and vigorous as on newly burned and cleared land. We have tried them on potatoes, when they increased the yield and evidently the rot, being used in the worst seasons of the potato disease.

From what we have learned from our own experience, and from others who haved used them, we consider leached ashes, on all dry soils, (if not leachy,) and especially on land long cleared and tilled, and for grain crops, as corn and wheat, a most valuable and lasting fertilizer. On wet or cold soils we doubt whether the result would be as favorable, and the experience of some of our farmers confirms our opinion.

As to quantity and mode of application, we should use from eight to twelve loads per acre, depending on the supply and amount of land to be ashed. Our opinion and mode would be to spread them evenly, before the last harrowing, for corn, and thoroughly mix with the soil before planting, and spreading them and harrowing in with the seed wheat; or they may be spread any time in the fall or winter on the wheat.

If your correspondent has a piece of winter wheat on dry ground, and will draw and spread ten loads evenly on an acre, and note the result at harvest, or spread the same amount on an acre of his corn ground, before harrowing for the last time, we think he will be convinced of their value for grain crops, on dry ground at least. As to its paying, it must depend of course on the cost of their application. We think they will pay to draw as far as any common manure, and that their effects are more lasting. That the lime used in considerable quantities in leaching, may, in the connection, contribute to their good effect, we do not doubt; and that ashes, as usually thrown out from the ashery, on certain soils and for certain crops, are valuable, we are perfectly satisfied. F. Fay. *Salem Cross Roads, Chautauque Co., N. Y.*

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Experiment with Guano and Stable Manure.

Messrs. Editors—Condemning, as all well thinking persons must, the prejudices with which many of our practical farmers regard all agricultural writings, and their unwillingness to receive instruction by becoming subscribers, I cannot but make some allowances for them, from the manner in which much agricultural information is imparted. To remove ill-founded prejudices we require more practical experiments, carried on during different seasons and in different soils; for instance, we want to know the advantages, if any, to be derived from the application of foreign fertilizers. This can only be done by actual tests on different soils and during different seasons.

Hence I have taken some pains in testing, on six acres of summer fallowed sand land, the relative value of guano and barn-yard manure. About the middle of September 1855, I applied 900 lbs. of Peruvian guano, well mixed with five times its bulk of pulverized soil, and a small quantity of gypsum, to half of the six acre lot, by spreading it as evenly as possible over the surface, and then turning it under with the plow four inches deep. One bushel of White Flint wheat to the acre was then drilled in with Seymour's two horse drill, cross harrowed and rolled in the usual manner.

I next scattered over the other half of the six acres, sixty ordinary two-horse wagon loads of rotted barn-yard manure, which had been heaped and turned during the summer. It was plowed under five inches deep, and sowed broadcast with one and a quarter bushels of flint wheat to the acre—the reason for not using the drill, was that it clogged with portions of the manure that were not rotted,—cross-harrowed and rolled as before.

The crop was harvested in July, during that very hot, dry weather. Last October it was threshed, cleaned and measured separately. The three acres to which guano had been applied, gave 27 bushels; the three acres manured, gave 48 bushels. The quality of the wheat was equally good, both weighing 63 lbs. to the bushel. To what cause must I attribute the much larger yield of the half that was manured? D. D. C. *Schenectady, N. Y.*

The Proper Application of Manures, &c.

Messrs. Editors—I have been very much interested of late in perusing the articles on Manures in the Co. Gentleman. I think the making, saving and applying manures, is of vast importance to the farmer whose lands need renovating from year to year, or once in four or five years.

Mr. Johnston's practice may be a good one, but I can't quite believe yet that piling green or long manure, to remain so for six months or one year or more, is better than plowing it in while green. It may do better for wheat to be in a decomposed state before it is applied, but for corn long manure gives good crops, and the succeeding crops I think must be better than those succeeding the rotted manure.

I have often stood by a manure heap and had my nose tingle by the ammonia which escaped from it. Now can it be that such a malaria can arise from it, and not injure it? I think not. The gases of manure fermented in the ground, (that is plowed under,) are all saved by being absorbed by the soil, but if fermented in a heap some of it must escape.

Rotation of Crops.

The farm I occupy lies on the intervale of Deerfield River, four miles from its mouth. Some of it is sandy loam, and some heavy clay or clay loam, on a stiff clay sub-soil. On the sandy soil I rotate with rye, wheat and clover, cutting the first crop of clover for hay, and plowing the second under for rye and wheat in September. By such a course I have raised in favorbble seasons from 20 to 28 bushels of rye, and near 30 bushels wheat to the acre—occasionally the corn crop comes in the rotation, when the land gets so grassy that it interferes with the growth of the rye and wheat, which is once in five or six years.

With the clay lands I have pursued a different course. When planted to corn, it is a sward, having been pasturing or mowing previously. In the spring, as soon as the land is in suitable condition to plow, from 12 to 15 large cart loads of long manure from the barnyard, is carted on to it, and spread; then about one bushel gypsum or plaster is sown to the acre and plowed under. When planted, (which is sometimes deferred till quite the last of May, on account of being too wet,) about five loads to the acre of hog manure is put into the hills with a small handful of plaster to each hill. Plaster used as stated above, has a very marked effect, the corn showing a more healthy color throughout the season, and the yield of corn is from 50 to 60 bushels per acre. The following year oats are sown at the rate of three bushels per acre, and seeded with grass seed or timothy and clover—I put a bushel of the former to eight or ten lbs. of the latter to the acre. The yield of oats is usually from 40 to 50 bushels per acre. It is then pastured or remains in mowing five or six years, when the same course as above stated is pursued again.

It seems to me no eastern farmer can afford to cultivate a farm without pursuing a course of rotations, for by so doing the sward he plows under helps manure it, and it is growing richer, while on the other hand, by continual cropping, it is growing poorer and less able to bear good crops.

How to Make Manure.

In regard to the management of cattle and making manure, I pursue the following course: My barnyard is small for the stock, which I consider good economy for the reason that the manure occupies a small surface; consequently it is not washed so much by rains. The manure is carted out on to grass land in the fall and spread, which I consider much better than to leave it in heaps during the winter. The yard is then filled to the depth of 12 to 18 inches with muck or turf, for absorbing the urine and wash of the solids. The stable floors are taken up, manure taken out which was put in the previous autumn, and filled up to the floor with turf. This absorbs the urine from the stables and makes a rich manure. My cattle are taken to the barn from the 15th November to December 1st, and are fed twice a day with as much hay as they will eat in the stables, with a little meal, and the corn fodder is fed to them in the yard when the weather will admit of it.

The straw is used for bedding stables and sheds, except what is eaten naturally as change of food. I am of the opinion that straw is worth more for bedding and manure, than to feed to stock, even if it is harvested in the best condition.

Value of Agricultural Papers.

The Cultivator and Country Gentleman have been of inestimable value to me for the last ten years; indeed I should hardly know how to do without a good agricultural paper at this time. I have learned many things I did not know before, and am continually learning something of value from them, in opposition to the old fogies who say, "away with your book-farming; it will ruin you if you follow its dictates; your farm will not produce enough to afford you a living." Such opinions are based upon the idea that all articles written for an agricultural paper are by those who have no practical knowledge of farming, and it is hard to convince them it is otherwise; but such opinions are giving way to more enlightened views upon the subject. The theoretical must be assisted by the practical to make farming profitable. Jas. Childs. *Deerfield, Mass.*

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Improving Meadows.

Messrs. Tucker & Son—Permit me through your paper to make some suggestions on the renovation of mowing lands where the crops fails, by turning under and seeding in the fall.

My practice has been, for some years, to mow about the first week in July; let the after-crop stand until from the 1st to the 15th of September; then turn it under carefully: spread on from 10 to 15 loads of well rotted manure prepared before hand; sow from 12 to 15 quarts of herds grass seed, and harrow well, and complete by rolling it, so as to give a good surface for mowing the next year. By this method I get from 1 to 1½ tons increase of hay to the acre. I consider what green crop I turn under to be as good as 10 loads of manure to the acre. I sow no clover, unless it is for the purpose of turning under to enrich my land By this management I manure my lands the cheapest, with the least labor, and with the best results.

I have adopted the same course of sowing my grass seeds on my newly cleared lands, with equally good results. If possible, burn and clear off the logs in August, and sow by the 15th of September from 12 to 14 quarts herds grass to the acre, and harrow well The plants will come up and get a good growth before winter, and the result will be a good crop the next year.

I prefer sowing my grass seed without a crop, to sowing in the spring with a crop. My reasons are, first—If I sow with my spring crop, the grass plants are overtopped, and one-half are killed if they come up; and second, that if they do survive, they do not get much growth until the spring crop is harvested. My method is to keep the grass seed until the spring crop is harvested: then turn under the stubble carefully and sow the grass seed, putting 10 to 15 loads of manure as a top-dressing, harrowing well and rolling down, taking care not to have it fed. I have tried both methods on the same piece of land, side by side, and the result has always been in favor of the fall sowing. By this course I avoid having my grass plants killed by a summer drought, or the direct rays of the sun—have more and a better time to prepare the land, and the result is a better crop. George Trowbridge. *Camden, Oneida Co., N. Y.*

Ten Recipes for Housewives.

One of our lady friends, for whose skill and taste in everything relating to house-keeping we can vouch, has, at our request, sent us the following recipes, and we trust she will not forget her promise to send more of them.

Mr. Tucker—The recipes which I promised you so long ago, I now send, hoping they may be of some use to your readers. I have tried all, and have never failed in having them good. When I meet with a recipe which appears to me not exactly as it should be, I generally alter it according to my own taste and judgment. I will send you more some other time if you wish it. M. H. K*****. *Auburn, N. Y.*

A CHEAP PLUM PUDDING.

One tea-cup of chopped suet,
One " of chopped raisins,
One " of molasses or sugar,
One " of sour milk,
Three " of flour.
One tea-spoonful of saleratus,
One table-spoonful of ground cinnamon,
Half a tea-spoonful of ground cloves.
Boil it three hours.

STEAM PUDDING.

Four tea-cups of flour.
One " of sugar,
One " of sweet milk,
One table-spoonful of melted butter,
One tea-spoonful of soda,
Two " of cream tartar,
Two eggs, with any kind of fruit you wish.
Steam two and a half hours.

DELICIOUS BLANC MANGE.

Put one ounce of Cooper's isinglass in a little water over the fire until it is dissolved. Then sweeten one quart of cream, add a little lemon or vanilla—whip it. Strain the isinglass on the cream—wet your moulds in cold water—fill them, and set them away until they congeal.

MOUNTAIN CAKE

One pound of sugar,
One " of flour,
Half " of butter,
Six eggs,
One tea-spoonful of crream tartar,
Half a tea-spoonful of soda,
One cup of sweet milk.

CURRANT WINE.

One quart of juice,
Two " of water,
Three pounds of brown sugar, all to be put together in a cask—let it remain with the bung out for six weeks—then bung it up.

TO PICKLE PEACHES.

Three pounds of sugar to one quart of vinegar. Spice them—pour the vinegar and sugar on cold, then set the jar in a pot of boiling water and keep them there until they boil.

INDELIBLE INK—(that is *indelible.*)

Six cents worth of muriatic acid—one table-spoonsful of soft water—one drop of vinegar.

CAMPHORATED ICE.

Equal parts of spermaceti, lard, white wax and camphor gum—simmer them all together, and it will cure almost everything.

EXCELLENT POMATUM FOR THE HAIR.

Melt four ounces of beef marrow,
" six " of lard,
" half " of yellow wax,
Perfume while cooling with oil of bergamot.

CURE FOR A FELON.

Equal parts of bar soap and common salt, softened by turpentine.

Cure for Inflammatory Rheumatism.

Messrs. Tucker & Son—In the Country Gentleman of the 5th inst., I notice an inquiry for a remedy for inflammatory rheumatism. I think I can give one that is both simple and effectual, and almost costless.

First—rid the system of *costiveness.* This plague is frequently the *origin,* and almost always an attendant upon inflammatory rheumatism. It may be easily cured. A thorough vegetable cathartic at the outset, and a pill or two each night following on retiring to rest, will open the bowels; and if the person is kept warm and clean, the disease will generally wear off soon. Ayer's, Moffat's, or Dr. S. S. Fitch's Cathartic Pills—the last best—are good for such a cure.

Should the rheumatism seem disposed to hang on somewhat after the costiveness is removed, it may be summarily ejected in the following manner: Set the patient in a low chair, and cover him—chair and all—closely, with a good thick bed-quilt, leaving a breathing place for the mouth and nostrils. Under the chair place a spider or iron basin filled with *rum,* which set on fire. If it makes too great a heat for the patient to bear, check it by sliding a board over it. Keep it a-going till the patient is thoroughly heated, and as wet as a drowned rat. The bed, by the side of which this *bath* is taken, should meantime be thoroughly warmed, and the patient removed to it from the chair, well covered up and tucked in, and allowed to swelter it out. Inflammatory rheumatism will take its departure, and if the proper precautions are afterwards observed, the places which now know it will know it no more forever.

Keep the body *warm always* by comfortable clothing—flannel next the skin—keep clean by bathing—avoid chills and damps, and wet or cold feet. Above all, keep off the great enemy—*costiveness.* Should it threaten, take one, two or three pills at night on retiring—just enough to loosen, not to physic. Eat a plenty of good wholesome food—not knick-knacks, and you will come out all right. I had a most horrible experience with inflammatory rheumatism—many times should have died of sheer agony, had not my pains been allayed by morphine. After suffering most awfully, losing much valuable time, and been dosed and drugged, I was finally *cured* by the above simple and inexpensive method; and for seven years hav n't had a *touch* of the disorder, and don't fear I ever shall. F. A. *Rutland, Vt.*

P. S. The spirit bath should *never* be used till some days after all costiveness is removed.

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Stretches, &c. in Sheep.

Messrs. Editors—You may recollect last winter that I wrote to you that I had some sheep die of the stretches, and that one of your correspondents advised to hold them up by the hind legs, (but not to lift the fore feet off the ground,) for fifteen minutes. I had one sick last week, and tried this cure, and next morning it chewed the cud and fed as well as usual. This is the first I ever had get well of this complaint, and the first time I tried this cure.

I had a very healthy looking sheep die last week, after 24 hours sickness. It went nearly blind, as it ran its head against the wall When opened, there was something like and about the size of a blown bladder of a hog growing on the stomach. It contained nothing but wind or air. John J. Craig. *Madison, Ind.*

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Michigan Ag. College.—Hon. Joseph R. Williams has been appointed President and Director of Practical Farming, and Mr. John M. Gregory, Professor of Political Economy and English Literature, in this institution.

Underdraining.

Editors Cultivator and Co. Gent.—My land mostly lies sloping to the west, with a fall of five to ten feet in a hundred, and is intersected by two small brooks which will afford a convenient outlet for drains. The soil is an admixture of clay and fine sand—is productive in grass, and in favorable seasons, with good cultivation, produces fair crops of all kinds of grain; yet owing to the hardness of the subsoil, the water, from heavy rains or melting snows, is unable to pass down through it, but what does not pass off on the surface, percolates slowly down the slope through the soil, *upon* the subsoil, or settles in any low places that may happen to be in the field, making winter grain very liable to be thrown out, and often rendering the necessary spring tillage backward and imperfect. The hardpan, which consists of fine sand, gravel and stones, with a portion of clay; the whole apparently cemented together, lies at various depths—say from one to two feet. Stones suitable for filling the drains may be had on the premises, but owing to the hardness of the subsoil the digging is expensive, especially if the drains are made deep. Drains three feet deep, will cost about fifty cents per rod when completed; two and a half feet, six or eight cents less.

With a fair market for the productions of the soil, will underdraining pay on such land? (1.)

How deep should the drains be made? (2.)

How far from each other? (3.)

And in what direction with regard to the slope? (4.)

I observe that most of the late writers on the subject, recommend making the drains directly up and down the descent, but it seems to me that where the fall is considerable, they would sooner catch the descending water if placed diagonally across, with sufficient fall to carry off the water freely, and that therefore less of them would be required; but your more matured opinion on this point is respectfully solicited.

As thorough draining is an expensive operation, I wish, before commencing it, to obtain all the information I can on the subject—therefore by answering the above inquiries, you will much oblige A Subscriber.
Wyoming Co., Pa.

(1.) There is no doubt whatever, that with good farming, the cost of underdraining would be returned in three years, and possibly in two—the cost, at 50 cents per rod, and two rods apart, would be forty dollars per acre; at 42 cents a rod the cost would be $33.60.

(2.) Recent experience of the best farmers is decidedly in favor of deep draining—for although shallow draining succeeds about as well at first, it loses its effect after the lapse of years. Some of the best English farmers advocate a depth of four feet. These remarks apply to tile draining. We are not sure they would apply so well to stone-filled drains, in a tenacious soil. Where there is much slope, three feet would be better than four feet on a nearly dead level. Where the hardpan is within a foot of the surface, in the land described by our correspondent, two and a half feet will probably answer; but where the surface soil is deeper, we should decidedly recommend three feet.

(3.) Not more than two rods apart.

(4.) The shortest way down the hill. For this reason,—if the drains are two rods apart, the water will oflw through the soil downwards in an oblique direction, and each drain will receive the water on *both sides*, so that the greatest distance the water will have to travel before reaching the drain will not much exceed one rod. But if the drains are cut diagonally, they receive the water *all on one side;* and a part of the water has to travel nearly three rods through the soil before entering the drain below. Besides this, the water when once in the drain will not descend so freely in a diagonal course; and if obstructed may flow over the channel into the soil below. While in a directly descending drain, the water, if obstructed, will immediately find the channel again, and will not pass off into the adjacent land.

Feeding and Culture of Carrots.

Messrs. Tucker & Son—I look upon carrots as one of the most important root crops that we have in general cultivation, and the various profitable uses to which they are or might be applied, should induce a majority of the cultivators of the soil to grow them more extensively than they now do. All kinds of stock, without an exception, are fond of them. I have wintered swine almost entirely upon carrots, fed raw. They not only grew, but *fattened* upon them. For this purpose, however, I would advise to cook them.

I prefer them to any other root (not excepting beets) for feeding cows that are milked through the winter. Butter made from cows so fed, is as good flavored and rich colored, as can be made in June or September. I once fattened a cow upon carrots, feeding meal only for a few days before she was butchered. She was quite thin when I commenced feeding, yet fifty bushels of carrots made her fat enough to yield ninety-six pounds of "rough tallow." Good judges pronounced the beef superior to any they ever saw. I commenced feeding her about the 15th of Oct., and fed a bushel a day until the fifty bushels were consumed. Can any of the readers of the Co. Gent. tell me of a cheaper way to make good beef, than the above? If so, I should be glad to hear from them.

Horses also thrive well upon carrots. I believe it is generally conceded by those who have tried it, to be ahead of any other root for this "most noble animal." In fact it is THE root for the horse.. Try it, brother farmers. Feed your horses less grain and more carrots, and if they have not smoother coats and fewer coughs than that neighbor of yours, who "stuffs" his with dry hay and grain, then resume your old practice, and call me a K. N.

I consider the *Long Orange* far the best as a standard sort for general cultivation. The White Belgian has been recommended by some as the best, on account of its being more easily harvested, as it generally grows nearly one-third of its length above ground. From what experience I have had with them, I think the difference in the labor of harvesting is not as great as the difference in the carrots. The White Belgian is far less nutritious than the deeper colored varieties, and never keeps as well.

I lately received a package of carrot seed from Germany, that was labeled "*Early Dutch Horn Carrot.*" It proves to be a very early variety, and is the best for table use of any kind I ever cultivated. It is fine grained, and has a peculiar, rich, and agreeable flavor; top, small; color, deep orange,—short,—tap root terminating abruptly. The latter qualification fits them admirably for thin or stony soil, as it facilitates the labor of harvesting. The carrot delights in a deep, rich, mellow soil. Therefore land intended for them can hardly be plowed too deep, or made too rich. I sow in drills, 18 inches apart. They should not stand too thick. An inch or an inch and a half apart is about the right distance. I generally sow from the 15th of May to the first of June, and harvest at the rate of 1000 bushels per acre. Carrot seed should be covered about one-third of an inch deep, and the earth firmly pressed about it. The neglect of the latter precaution has been the means of losing many valuable crops. In sandy soil it should be covered deeper. The heaviest crop I ever raised was on a piece of land that was used as a barn-yard during the winter preceding. The greater portion of the manure was drawn off, and the land plowed and sowed the first of June. The ground and carrots were measured at the time of harvesting, and found to yield at the enormous rate of 1600 bushels per acre. Edward L. Coy. *West Hebron, Wash Co., N. Y.*

The Hog Cholera.

Noticing in your journal an account of the general appearance of this disease, and having lost a valuable brood sow very suddenly, I thought I would make a *post mortem* examination, the result of which I send you, in order that a comparison may be made by others in similar circumstances.

On the 5th of January the animal was observed to refuse her food, but did not exhibit other signs of uneasiness, and I supposed that during my absence she might have been over-fed. On the morning of the 6th, she was found dead, though not entirely cold. On examining her externally, large purple blotches, in size from one to three inches in diameter, appeared on the throat, extending along the stomach to the tail, resembling erysipelas. On attempting to bleed her, very little blood, and that almost black, was obtained. After taking off the skin, the body appeared as usual, and on opening the stomach the large intestines were highly inflamed, being of a dark red appearance; the bladder and kidneys did not seem affected, nor was anything perceived about the small intestines. On examining the stomach it was found to contain a small quantity of half digested food, but presented no inflammation or other derangement. On removing the liver and lungs, the liver appeared of a dark purple color, which soon changed to the usual dark red, and no inflammation or other derangement could be observed. The lungs were highly congested, every blood vessel being gorged with black or venous blood.—Whether this was due to disease, or only the natural condition of the lungs when the animal is not bled, I am unable to say. On opening the cavity of the chest, about a quart of straw colored liquid, resembling urine, escaped, which was without smell. The heart did not exhibit any derangement, and the lining membrane of the chest was not at all inflamed. The throat, tongue and brain presented the usual appearances.

My opinion is, from the above examination, that the disease is an inflammation of the large intestines, and that the remedies should be by injection of castor oil or other gentle aperients, which I have used in other cases with immediate effect; a common syringe, such as every family should possess, is all that is necessary. Molasses and water with melted lard, pretty warm, is excellent in most cases of illness of swine.—The hog, unlike most other animals, puts himself on a strict diet whenever any illness occurs, and eschews both food and medicine.—J. S. Shipman. *Farmingdale, L. I.*

Singular Disease in Calves.

In The Cultivator for Feb., J. B. H., New Paltz Landing, asks for information respecting a disease which prevails in his neighborhood, among the last spring's calves. If he will examine those that die, he will find in the windpipe and lungs large numbers of *worms* and from one to two inches in length, and about the size of a large sewing needle. This singular disease has been known in this section of country for many years. It does not make its appearance every year, nor oftener than once in seven or eight years. It shows itself the latter part of summer, or say about September. The calves most affected with it generally die in a month or two—those affected in a less degree may be carried through by extra feeding and care, and are generally rid of the disease before spring. I have tried various experiments in order to find a remedy, but without success. I should say to those who have calves attacked with this disease, feed them well with grain, roots, apples, &c.; shelter them from cold storms, and make them as comfortable as possible, and thus assist *nature* to throw off the disease. Isaac Burr. *Meredith, Delaware Co., N. Y.*

Sinking Stones vs. Blasting.

As some may have large stones which they may wish to get out of their way, as I have, I would suggest the policy of sinking them, as being cheaper than blasting, except a person is about building and needs the stones for walls.

I had some hard flint stones in my ground which I could not blast, and to remove them I dug a hole along side, and tipped them in, sinking them about two feet below the surface. In doing this I found it so much cheaper than blasting, that all large stones that I cannot move without blasting, I now sink, as being decidedly the cheapest way to get rid of them; besides it helps trench the ground, which is a benefit. Seeing the advantage of this, I have thought you might like to make the suggestion through the Country Gentleman if you have not already done so. P. *Waltham, Mass.*

How to Save Liquid Manure.

Messrs. Tucker & Son—Having had occasion, a few weeks ago, to go through the town of Western in Oncida county, I called at Messrs. Porters, where, having occasion to visit the cow stable, I saw that they saved their liquid manure. For the benefit of those who read your widely circulated paper, I will try to give a description of how it is fixed. Their cow stable is 80 feet long. In the center is a tank 24 feet long, 10 feet wide, and 5 feet deep, covered over. Right behind the cows there is a sink 12 inches wide and 3 inches deep. In the sink, between every two cows, there is a grating, 12 or 14 inches long, and 8 inches broad. This grating allows the liquid to drop through from the sink into a leader, which is right below the sink. In this leader it goes to the tank. All the slops and wash-water from the house are conducted through large pipes the distance of 200 feet, into the tank—also from the hog-pen, so that they collect from 700 to 800 barrels of liquid manure in twelve months They told me that the whole fixings only cost $60. I think the comfort the cows have, is well worth the money. The liquid is carried out in spring and distributed over the meadows with one of Fraser's liquid manure distributors. Any dairy farmer that is within 30 miles of Western, and who intends putting up new barns, should call to see this barn. It would well pay them. A Subscriber. *Trenton, N. Y.*

Draining with Stone.

Messrs. Editors—I will give you my experience in making blind drains, as I have made several hundred rods, and make more or less every year, and have made at all seasons of the year. The best time is in the spring, as soon as the ground is settled, especially where there is hardpan, as that then works the easiest. My mode is to commence with team and plow—cut two furrows, one from the other—then put the plow in the centre and cut as deep as I can—then shovel out and dig from three to five feet deep, and even more where I cross ridges—the bottom ten inches wide. In filling, I take flat stone and set them on the edge on the outer side of the ditch, and let the tops come together, forming Λ—fill in with small stones up to within eighteen inches of the top or surface. Then take litter or straw and cover the stone lightly, and then take the plow and fill up rounding, as it will settle more or less. Some of mine have paid expenses the first crop. I have drains that were made in 1838, and answer their purpose well yet. L. C. *Monroe Co.*

The Willow.

Who can Cultivate it, and what it may be used for.

It is generally by comparison that the great mass of us judge, whether of economical results or preliminary processes; either of cultivation or the manufacture of its products. I may be allowed therefore to state what I have seen of the Osier Willow and its handicraft applications in England. This will appear the more judicious before alluding to what may be done here at home, because we derive not only what knowledge we have of its value, but even the plant itself from thence.

In England the willow is manufactured in a peeled state, into domestic clothes baskets, rocking cradles for children, hand-baskets for picking apples; butchers' or meat baskets, bakers or bread baskets, chair bottoms, children's or small chairs, small hand baskets for eggs, &c., and a great variety of other purposes which I need not enumerate. The split willow is used principally for toys and ornamental purposes, ladies' baskets, &c., and it is used in the latter form for inclosing bottles or glass ware intended for pocket use and for conveyance in a more secure form, to places more or less remote.

It is to purposes for which it can be converted in its natural unpeeled state, and situations in which it can be grown, that I wish particularly to invite the attention of farmers.

So easily cultivated is the willow in England, that they there grow it extensively—as I have seen it in the valley of the Severn and other places—in cuttings where the top soil has been taken away to form embankments for roads and canals, and where clay has been taken for brick and tile making, &c. In such situations the roots of the willow bed are under water for three months of the year, from which it may safely be inferred that localities in which it can be submerged or flooded in the spring, will be most favorable to the rapid growth of some at least, of the several sorts. Varieties of it can be grown on moist land anywhere without flooding—but the same can, without doubt, be raised more rapidly with; and it is therefore most appropriate, where such situations can be secured, to use them for the propagation of this simple but useful tree.

I have seen it—in some of its varieties—used for purposes but little thought of here—and cut from trees —but for which, or more *useful fixtures*—a fence may generally be considered a fixture—it may be applied, especially where fencing material is getting "small by degrees and beautifully less," as in many localities in this great west, with great convenience and advantage; and the rapidity of its growth is a high recommendation to its cultivation, whether for fencing or other purposes. In the districts where what is called the Worcester hop is grown, which, notwithstanding the name, is principally in the county of Hereford, the willow is extensively used for hop poles, which are from fourteen to twenty feet in length—also for hedge stakes, which are driven into the ground, as well as the hop pole—and these situations both, in that moist climate and soil, are tests of its durability—the stakes being for the purpose of interlacing the thorn and other hedging material around and between, thus stiffening and strengthening the fence till it becomes an impassable barrier.

Now if varieties of the willow can there be grown so large, why may it not be grown in moist localities, where, like the common Poplar, Elm, Black Ash, &c., it can elaborate the moisture necessary to its composition, with equal facility and advantage, in these States where so many varieties of soil, moist and dry, are afforded, and where at least several of the smaller varieties have been quite successful.

What is called the Etheredge Willow is said (I have not seen it in the west) to be a large and quick grower, and is probably a variety of the large kind to which I have alluded; and if so, it can be grown with advantage and economy, and to supply a great necessity for fencing purposes as middle-poles, used under the rider to stop sheep, &c., and for stakes and riders in our common rail-fence, as well as for stakes (which, if put in early in spring (the stakes) would certainly grow,) and top-poles for sod or ditch fence in swamps and marshes.

That the willow is durable is well known by the lasting qualities of the manufactures of its cultivated varieties; and even the wild growth of our swamps is used for and known to make durable fence-stakes.

I have called a large variety of the willow a *tree.* This variety is similar to that which has been described in the papers as growing large enough for hoop-poles in two years, and suitable for cradle handles, &c., &c. This tree variety is grown readily on the margins of streams, stock water ponds, fish-ponds, lakes, artificial or natural, mill-ponds, and in swampy and springy places; and there is an abundance of such among us, and it flourishes rapidly.

It is propagated by cutting poles two inches and upwards through, and from twelve to fourteen feet long, and inserting them, by means of a bar, from eighteen inches to two feet and a half deep, according to the texture of the soil and the *permanent* supply of moisture to the imbedded end of the pole. The poles are *cut in winter before the sap starts*, for this purpose; and, in this climate, should be kept from thawing till the frost is out where they are intended to be put, and then set out with a bar as stated. It is necessary to tie some rough material, as locust brush, old raspberry bushes, or other brush, to keep stock from *rubbing* them the first two seasons, when they will have become securely rooted, and thus far out of danger.

It is desirable to leave a few inches of one or more branches, where the pole is cut off at the top, to make a wide spreading head for the tree. At two or three years from setting out, the pole, or tree head, is cropped, or cut off as level as can be done—level to prevent the sap from going too much to the central or leading branches,—and the crop, or poles and brush, used for pea brush, bean-poles, brush-drains, for which it is excellent, and for faggots, or bundles of brush for summer fuel, kindling wood, &c. The smaller branches or twigs of the tree sort, also the Osier, are excellent for tying on the protecting material for the poles, and tying up the brush, so that it may be taken when wanted with facility and expedition. At this stage of its growth a head of considerable size and breadth—say from ten to twenty inches, according to the number and spreading of the branches when the pole head was cut, will have been formed.

Now for the practical benefit or result. At five, seven, and nine years from the first cropping, and in a greatly *increasing proportion* from many successive ones, poles large and long enough, strong enough, and durable enough for stakes, hop-poles, top-poles and riders, and of size sufficient to split for hurdles or portable fence, may be cut in large quantities; and by a dexterous hand and sharp axe, with all desirable speed; and all with sufficient economy of labor and expense to satisfy every reasonable expectation, and even to gratify the most fastidious.

In addition to the uses I have enumerated, it may be made to subserve those of wind breakers, and excellent fencing material for our marsh and moist lands, planted on the banks, and constituting a beautiful fringe, which with rows of trees of the large sort at intervals of twenty feet—they will require this distance at least, for I have seen the solid level head four feet broad *after* cropping, and the *head growth* fifteen feet in diameter—will add variety and beauty to the scenery, and necessary conveniences and worth and value to the farm.

The Osier can be fabricated, *unpeeled* here, as it is in England, into a great variety of useful basket-ware and packing cases, such as fruit, potato and corn baskets—crates for packing crockery; vegetable and poultry baskets of any required size, to be sent to market or other distant places. For fruit and vegetable baskets, and, in brief, for packing all quick decaying substances, requiring access of air, it is admirable; and in the summer season they would be very convenient for sending perishable goods from the Western States, and other distant points, to the New-York market. For corn baskets it will be admirable, and very cheap; and also for baskets to feed cut straw, roots, &c., to stock; and the large or small kinds would make a good wattled fence for poultry yards, &c.

As I have stated, it is extensively used in England unpeeled; and I think it correct to say that full half the whole growth there, is manufactured *without* peeling, and there is no reason why as large a proportion, besides the addition of the large sort, may not be fabricated in the same stato by us.

The proportion in which farmers should plant, may be to some extent variable, but I am preparing to set out half a rod of Willow and Lombardy poplar together, in nursery rows, to every acre of marshy land I have to fence, (Yellow Locust I *have* prepared in the same proportion, for upland fencing material,) and I would earnestly urge every farmer to establish these necessary stated points now, for I am confident—having good personal reasons to be so—that besides willow manufactures, we can mature a system of hedge-fence that will be sufficient for our entire ordinary wants and purposes, with materials already successfully and extensively grown in these States; and if farmers will now set out nursery plats of the Willow, Yellow Locust and Lombardy poplar, they will in two brief seasons have the material with which millions of acres may be enclosed within four years, with the rudiments of substantial fencing! thus adding value to the soil, beauty and variety to the landscape, increasing the general value of land, and by saving the needed material of fuel and fencing, realizing the injunction, "put money in thy pocket." I need not specify who can manufacture willow ware or where it can be done, for it is so simple an art, and so easily performed, that almost every one with any handicraft or skill, and every homestead, are abundantly suited to economical conversion. J. W. CLARK. *Marquette, Wis.*

Cost of Keeping Work Horses and Oxen.

In the usual haphazard management of many farmers, they never seem to figure the cost of any crop they raise, or ever attempt to reckon the cost of rearing to a given age their several kinds of stock, or even dream of the expense of keeping a work horse or yoke of oxen. It might be difficult to arrive at the exact cost of wintering a yoke of oxen on many farms, as they are at times fed on meadow, then on English hay, straw, corn-fodder, nubbings of corn, &c.; but in this way of feeding through the foddering season a pair of seven feet oxen, the actual expense may amount to more than many farmers are aware of.

We have some facts showing the cost of feeding a span of horses and a yoke of oxen for one year, when fed on hay and Indian meal, and kept constantly at work. Of course, the size of horses and oxen varies greatly, as also does the price of hay and corn in different sections of the country. As a general rule, it is supposed that the quantity of food required by an animal, is in proportion to the weight of the horse, ox, or sheep. Thus, a horse weighing 800 lbs., would require but two-thirds the food of one weighing 1,200 lbs. So of oxen—a yoke weighing 3,000 lbs. would require one-third more food than a pair weighing but 2,000 lbs. We do not say the above rule is perfectly accurate, but taken in connection with some accurate statements of *feeding* that we shall cite, we think it may afford a tolerable data by which the farmer can calculate, something near, the expense, per week or month, of keeping a horse or yoke of oxen.

We copy from the "Agriculture of Massachusetts, for 1855," the statements of W. F. PORTER, Esq., of Bradford, Mass., on the cost of feeding work horses and oxen, when kept on hay and meal. He says:

"I have kept from six to ten oxen and four horses for the past five years, until last spring, when I dispensed with oxen altogether. I have learnt by actual experience, the cost of keeping to be as follows: A pair of horses, weighing twelve hundred pounds each, will work every fair day during the year ten hours, and keep fat on six quarts of Indian meal and sixteen pounds of good hay each per day. A pair of oxen, girting nine feet, or weighing thirty or thirty-two hundred weight, will require four quarts of Indian meal and thirty pounds of good hay each, per day, provided they are kept at work as many hours as the horses. The cost of keeping a pair of horses as above, would be, at prices in this vicinity at this time, thirty-two pounds of hay per day, at $25 per ton, forty cents—twelve quarts of Indian meal, $1.12 per bushel, forty-two cents—total, eighty-two cents, or $299.30 for one year. Keeping one pair of oxen one day, sixty pounds of hay, $25 per ton, seventy-five cents; eight quarts Indian meal, $1.12 per bushel, twenty-eight cents—total, for one day, $1.03, or $375.95 for one year."

These figures will astonish many farmers; but the horses and oxen were extra large, and so were the prices of hay and corn.

Some two or three years since, Gen. W. P. RIDDLE of Manchester, N. H., informed us that he had kept a pair of his work horses for the (then) past three years, on the daily allowance of four quarts of Indian meal and three pecks of cut hay to each horse. On this allowance it requires about one bushel of corn per week, or fifty-two per year, and one ton of the best quality of English hay, for feeding a horse for one year. Corn at $1 per bushel, and hay at $15 per ton, (the price of each at that time,) makes the cost of feeding a pair of horses on Gen. R.'s plan amount to $134 per year. We saw the horses, and think they weighed not far from 900 lbs. each.

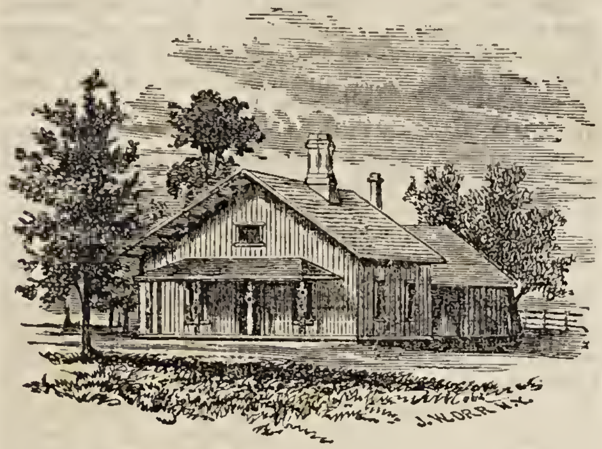
A few years since, we owned a pair of seven-feet oxen. In the month of May we purchased a given quantity of good hay at $12 per ton, and corn at $1 per bushel. The oxen worked six days in the week. The cost of feeding amounted to $4,50 per week, or 64½ cents per day, (39 cents per day less than Mr. Porter's etimate,) yet the expense of feeding a yoke of seven-feet oxen, as it cost us, would amount to $234 per year, to say nothing of shoeing, taxes, interest on their value, risk of sickness, accidents, &c. *Query*—What should the farmer tax per day for the use of his oxen when he "works out," hauling wood, manure, plowing, &c. for his neighbor?

Compost for Potatoes.

A correspondent of the COUNTRY GENTLEMAN recommends Mr. Durant to try

100 pounds of best Peruvian guano,
200 " " Ground Plaster,
25 " " " Salt,

passed together in small quantities at a time, through a fine riddle, so as to mix them as *intimately* as possible—and use about half a gill to a hill of potatoes, covered lightly—say not to exceed three inches—and see what the effect will be. Some little experience has convinced him that it will keep off disease, and furnish a crop of excellent vegetables, both as regards size and flavor. If he had an opportunity to repeat the experiment himself, he would increase the quantity of salt to 50 pounds.



One Story Farm House.

This design for a simple and inexpensive farm cottage, is from the Register for 1857—where it is accompanied by two different plans for the main floor, and one for apartments above, if a second story should be wished—together with suggestions for giving a little higher finish to the exterior, and estimates of cost, &c.

Ice House in Cellar.

Will you inform me whether ice can be kept to good advantage under a room occupied as a bed room, (in cellar,) and whether it would be prejudicial to health, by putting a ceiling and filling with saw-dust. I want it attached to the north end of my house, which is two stories high, and make it accessible from the cellar of the main building. What amount of ice will a cellar of 14 by 18 and 6 feet deep contain? I have two objects in this plan; one is to shelter from the sun—another, that the melting ice may pass through a drain from the cellar. A Subscriber. *Orange Prairie, Ill.*

An ice house may occupy one corner of a cellar, but we would recommend, in addition to the saw-dust covering, that a space of air be left, to circulate between the saw-dust and the floor of the bed-room above. This might not be necessary, if the floor over which the saw-dust is deposited is made perfectly tight, and the saw-dust well dried before using.

A space, 14 by 18 feet, and 6 feet high, *in the clear*, would contain 1,512 cubic feet. Each cubic foot of ice weighs about 55 lbs.; consequently there would be about 83,000 lbs., or 41 tons.

Use of Hen Manure on Corn.

Messrs. Editors—In reply to W. F. Woodward in Country Gentleman of Feb. 15th, I would say I have been in habit of using hen manure, applied in the hill on corn, for a number of years, with excellent success. I take my hen manure to a convenient place—say a barn floor, and pulverise it thoroughly—then mix two-sixths ashes and one-sixth plaster with an equal proportion of the manure in bulk of both ashes and plaster. After preparing my ground by spreading, say 25 cart loads of stable or other good manure on the turf, and plowing it under, I mark out my ground without either harrowing or bushing, and then drop one gill of the above mixture in each hill, either planting my corn close beside, or kicking on a little dirt with my foot over the mixture, and planting directly on it. I row both ways three and one half feet apart. In this way I have succeeded in getting fine crops. I generally use about 15 bushels of the hen manure mixture to the acre; but if I used no other manure to carry out the crop, I would certainly use at least 40 bushels of the same. I think most farmers miss it in running over too much ground to get a bushel of corn, when by manuring heavily they get the same grain on less ground, and make a saving in labor, and leave the soil in a better state for stocking down. E. Allin. *Pomfret, Conn.*

Poland and Imperial Oats.

Messrs. Editors—I have seen "Poland Oats" and "Imperial Oats" advertised for seed in the "Cultivator." Will you describe them, and are they better than the common oats? I have a piece of ground that bore a fair crop of corn last year without manure, (it lies so that I can't manure with yard manure) that I want to sow with oats in the spring; now will it pay to sow guano on the oats? If so, how much does it want to the acre, and how apply it? The soil is loamy, very good for grass—not so good as a clay soil. J. T. *Litchfield Co., Ct.*

Poland oats are a heavy variety, and much esteemed by many, both for their weight and productiveness. But they are liable to shed their seed, unless cut very early, and many reject them on this account. In other words, opinions are divided on their general value. There is a black and white sort; the white appears to be most generally known and valued. We cannot give any distinct information on the Imperial oat, (also a very heavy sort,) from experience. Guano may benefit oats so as to "pay;"—more or less, according to the nature of the soil—three hundred pounds per acre may be sown broadcast, and harrowed in with the seed.

Root Pruning.

I saw somewhere in some of my papers, an article on "root pruning." I think the substance of the article I allude to is, that a circle should be dug around each tree about two feet, and the roots to be cut off, &c. Will you be pleased to refer me to that piece. J. H. *Monroe Co., Va.*

We are not aware of having published anything recently on this subject. Root pruning has been chiefly practiced by Thomas Rivers, the celebrated nurseryman, of Sawbridgeworth, England; but it is not generally considered as advantageous in the management of trees. It checks the growth, like transplanting, but less so; and if trees are growing too rapidly to bear freely, of course produces fruitfulness. But too rapid growth is not a common evil in this country—the reverse, from neglected culture, is far more frequent. Yet there may be cases where it may be of use. To prepare bearing trees for removal nothing could be better. Trees that are perfectly hardy may be root-pruned in autumn—those more tender in spring. The degree of close cutting will depend on the degree of check in growth which may be desired.

Cheap Paint.

If any of your readers wish to use a very cheap and substantial paint, of a drab color without lustre, let them mix water lime with skimmed milk, to a proper thickness to apply with a brush, and it is ready to use. It is too cheap almost to estimate, and any one can put it on who can use a paint brush. It will adhere well to wood, whether smooth or rough—to brick, stone or mortar, where oil paint has not been used, in which case it will cleave to some extent, and forms a very hard substance, as durable as the best oil paint. Jas. M. Clark. *Throopsville.*

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Chinese Sugar Cane.—I hope to hear more from your correspondents, of the Chinese sugar cane and millett—whether they can be profitably grown here in this cold corner, for cattle feed, for our old pastures are becoming deplorably poor from year to year. L. B. [We think about all has been said about the Chinese sugar cane that is necessary, until after another year's trial.]

Wanted—An Experimental Farm.

Agriculture is not one of the exact sciences. There are constantly recurring questions in every farmer's experience, which neither pencil and paper, nor all the rules and formulæ of the books can reach. Indeed it is not only true that calculation is here entirely at fault, but in no other department of human labor, perhaps, have so few investigations been made, capable of serving even as the foundation of further reasoning. Experiments have not been wanting to bring the other useful arts to a wonderful degree of advancement. While they are becoming more and more systematized, Agriculture is yet at fault for a true theory. While Science has scarcely left a single process in Mechanics of any kind, without important aid, the majority of Farmers are still in the habit of regarding her as little better than a charlatan. The few who have hoped the most from her occasional researches, can but confess to some disappointment in their results.

We do not refer to all this as cause for discouragement. So much has the importance of Agriculture gained upon the public mind of late, that, aside from what is said on the subject by pretenders, or merely for *bunkum*, there is really room for congratulation in the position it has now achieved. There appears to be a general willingness, even an anxiety to promote its interests. The great difficulties are to know How and Where. Any scheme that claims the public regard and support must first show itself able to *accomplish* something, and a way would then at once be opened to every head, and what is still more important as the world goes, to every pocket.

Every department of rural labor is now the subject of controversy, from our ignorance of those first principles which proper investigation and careful experiments might define at least with some degree of clearness. The relative values of different crops for feeding, of different manures for growing them, of different breeds of animals and different systems of culture, of unlike or opposite modes in the dairy, of dwarfs or standards, etc., in the orchard,—in fine, the true economy whether in-doors or in the field, at the stable or upon the pasture, in the granary, the meadow or the garden,—the whole is now involved in great confusion. We do not say that one system of general cultivation, one breed of each of the domestic animals, or one class of crops or manures is ever to be laid down by rule and measure for any one locality, even by all the experiments of centuries to come. But what might be reasonably hoped, is the collection of such a store of facts as would enable us to define with some exactitude the peculiar qualities of competing breeds, manures or systems, and their merits *relatively to each other*. No one at all conversant with the past history of Agricultural literature—no one who has read the recent papers in our columns from advocates of diverse ways of manuring, and of the various breeds of cattle, but must confess the great want under which we labor of such determinative facts and figures.

It is not out of place, and may furnish an incidental argument, to add that to their accumulation of the experience and practice of thousands all over the country, is owing much of the good accomplished by Agricultural Papers. By it they have done more for the farmer than all other means put together, for without it and without them, other means must have failed of general dissemination. By their success in eliciting this experience more than any thing else, are their respective claims upon the farmer to be ranked. And one which presents the views, and what is far more, the actual *doings* of multitudes of farmers, only lacks unity of plan and system of organization, to convert our whole territory, as it were, into one great Experimental Farm.

The term we have here used in a figure, brings us at once to the purpose of this article. There still seems to be a very general misunderstanding of the true distinction between the expressions "Model Farm" and "Experimental Farm"*—the former referring to one, which is in reality a model for the farmer who desires to make a good living and become wealthy,—the other applying simply to an establishment devoted to trials of different methods to determine their respective characteristics, and to investigations of the phenomena of Agriculture without regard to cost, with a view merely to accurate and systematic results. The former we now have in abundance. Such are those, the owners of which have from them achieved a position for themselves, a healthy and respectable education for their families, and a competence for their old age, here and there over the whole country. They are already in existence, already open to the inspection and emulation of others. But can we point to a single one of the latter in practical and effective operation? Experiments it is true are constantly going on, many of them the involuntary ones of common experience, to which we have referred as reported through the Agricultural press,—but they are not carefully conducted and closely observed enough, to assist materially in coming to reliable conclusions.

This blunder, of founding farm-establishments, with no clear idea as to which of the two ends named they are specifically intended to promote—has been the cause of no little misapprehension and opposition among all classes interested, and of thus delaying or altogether preventing the accomplishment of much good. From its very nature an Experimental Farm cannot meet its own expenses. A Model Farm on the other hand, is expected to do even more. And when farmers have seen, either here or abroad, a hybrid attempted between the two, they have gained little from the experiments carried on, and generally found much to laugh at in the attempt to set them examples of money-making, or to teach them and their sons the practice they have been all their lives acquiring.

Hence it results, as we think, that to establish genuine "Experiment-Stations," as they are called in Germany, is a legitimate object to receive here, as it has already done in Europe, the bounty and fostering care of government. They are, from the necessity of constant outlay and able scientific supervision, beyond the reach of the private skill and enterprise, to which we are now indebted for well conducted "model" farms in every state. To these last let the young man go who seeks to acquire the details of farming; but give us somewhere for Science and Practice to join hand-in-hand in investigating the great truths of Agriculture, in eliciting new principles and in clearing up the mists that obscure our knowledge of what we have hitherto acquired. We have erected Observatories to detect the secrets of the sky; those greater secrets buried in the earth beneath our feet are disregarded. In the first, we place a band of constant watchers and calculators; we endow the institution to meet all their expenses, and if in the course of years a single new asteroid dawns on the eye, or an unknown comet is seen to gleam in the far-off heavens, we are justly proud of the achievement. A little of the same public generosity and scientific skill bestowed upon an interest to which all classes are indebted for the very bread they eat, would by comparison scarcely seem out of place. Indeed had the money laid out upon the former, been applied with similar sagacity to exploring the principles of the latter, Agriculture might have witnessed the triumphs recorded in the progress of Astronomy, and the farmer of our day been made the superior of Varro or Virgil, in more than the mere difference between the implements and machinery of their respective ages.

If what has been said shall serve to give point to several suggestions of a similar kind, that have from time to time appeared in our columns, it will scarcely be expected that we should also add the details of such a plan as appears to us most likely to promise valuable, practical results. A brief hint or two and we will conclude. An Experimental Farm, to subserve the greatest good, need not be on a large and vastly expensive scale. Fifty acres of land, the necessary outfit of apparatus, &c., &c., with the services of a reliable, industrious and able agricultural chemist, and of a thorough practical farmer,—with the buildings to accommodate them in their duties, comprise all that is needed to constitute a good beginning. If the right men could be found—and the occasion, we trust, would not lack them—to give such an institution the character, and carry it on with the united zeal and fidelity necessary to its success, we cannot believe that either the state or national legislatures would be appealed to in vain for its endowment. The more complicated it is made at first, the more room for its becoming an asylum for political friends; but give it an inexpensive start, and let it feel its own way by degrees to a larger and larger sphere of operations, with the single aim of promoting its own legitimate objects, and we should have in a few years statistics of more value than many words, and proofs that mere opinion could not shake. The *education* the farmer requires, aside from that to be gained by witnessing the practical and business operations of good farming, differs but little from the proper education of any other man. But we must have a farm-observatory, an experiment-station of the proper kind, before we can hope to shed that light on Agriculture, and extend that aid to tho farmers, of which they are now most in need.

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* See an editorial in the Co. Gent., vol. vi, p. 329.

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Culture of Barley in Jefferson County.

MESSRS. L. TUCKER & SON—Your correspondent E. H. M., in Country Gentleman of Feb. 26th, inquires in reference to the raising of barley. In Jefferson co., N. Y., barley is becoming one of the most important crops we raise, and is usually sown the first week in May. In looking at my account book, I find in 1851, I sowed barley April 23d,—except that year, I have always sown from 5th to 12th May, and have never seeded less than three bushels per acre. The best crop barley I ever raised, there was four bushels seed per acre. It is just, howevor, to say that it was in 1854, one of those extraordinary dry seasons. It was sown May 12th, and did not rain enough after it was sown, to wet into mellow ground two inches until sometime in September; the soil was mellow, rich, and moist at the time of sowing; it came up quick, and being thick, the drouth did not affect the growth of the straw; and had it filled and been plump as our barley usually is, there would have been near sixty bushels per acre; I got forty bushels per acre. Four-fifths of the barley sown in our section of the country is the two-rowed. The four-rowed gives large straw, but far as my experience goes, not more than three-quarters as much grain per acre.

We sow and raise good barley on all of our best wheat lands—I mean on land with a mixture of clay or clay bottom, or hardpan, on gravelly soil and on muck—finally, the richer and mellower the soil, the better the crop. If you sow barley on greensward, be quite sure to give it a good coat of plaster when it is nicely up. Never sow barley on sandy, loamy soil, and always avoid limestone ridges, unless they are remarkably well plowed, deep and mellow, and then should it be a dry season you would stand a chance to get a light crop.

We usually get from 25 to 35 bushels per acre—40 bushels is a good crop, and there are those who talk of getting 60 bushels or over per acre. I raised 507 bushels last season on sixteen acres that had been plowed and cropped over half the time for the last forty years, and during that time there have not been to exceed fifty loads of manure put on the piece, and not one load in the last fourteen years. The soil on which it grew is gravelly, inclined to muck, with a clay bottom, some eight inches below the surface. About two-thirds of the piece was plowed in the fall, the balance in the spring; could see no perceptible difference in the barley. I offered it for a premium at our county fair—had no competitor—the committee reported too light a crop—that it did not come under the rules of the society, therefore received no premium.

It is a practice with many of our best farmers to have their barley land plowed in the fall, and it is not touched again until the seed is sown, and then well cultivated and dragged. There is no crop that should be so well got in, and thoroughly rolled down smooth and nice, and no crop that pays so well at present prices.

There are two important reasons why the barley field should be made smooth with the roller—the first comes under the common broad rule that applies to the rolling of all lands sown to spring crops; the second cause—it is less work to harvest three acres of smooth rolled land than two acres of unrolled, and should your land be full of small stones, lumps, or dry, you would find it difficult to rake clean. The heads and straws are slippery, therefore the greater care in fitting tho ground is necessary.

Our barley is usually harvested in the fore part of August. Great care should be taken that it do not get too ripe. Our usual way of harvesting has been to cut with a scythe the same as hay, and cock it up the same day of cutting. It may and usually does remain in the cock for quite a length of time; it will there cure without heating, and is drawn direct from the cock to the barn with full as little trouble as our hay is drawn.

We consider the straw from an acre of barley, if properly harvested, about equal to one ton coarse clover hay for our cows or young stock. DANIEL PARKER. *Watertown, N. Y.*

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Liquid Manure.

Please inform us whether liquid manure should be used as fresh as possible, or should it stand in the tanks and ferment awhile; and if it should be allowed to ferment, how much fermentation would be best. The gardeners say that stagnant water is poisonous to plants; if that be true, would not stagnant manure water be injurious when applied to growing plants. J. R. COMSTOCK. *Mabbetsville.*

Liquid manure is best if applied while in a state of incipient fermentation. The nature of tho soil should make a difference—when applied to clayey lands, fermentation appears to be retarded; but on sandy soil, it is accelerated,—probably in a way similar to that by which the manufacture of vinegar is hastened by passing it over fibrous substances, exposing it more completely to the aetion of the air.

If stagnant water contains any *poisonous* matter, it may be injurious, but not otherwise. A very refined lady once asked us if her beautiful flowers and delicate roses, should not be watered with "very pure" water, as she thought any foul matter would certainly poison them. She was evidently greatly shocked on hearing our reply, that the *manure*, which made them grow most luxuriantly and bloom most beautifully, was composed of all that was foul and offensive, (according to common perverted custom,) and that a portion of this foul matter in solution with the water, would be the very best thing she could apply to them. One of the most wonderful, we had almost said *miraculous* provisions of nature, is that by which decaying and fœtid matter is changed into the most beautiful and refreshing flowers—a purifying process constantly going forward on an immense scale.

Mice-Girdled Trees.

Much damage has been done the present winter in many places by mice; and inquiries are continually pouring in upon us for a remedy. We gave in a recent number directions how to prevent this evil by clean cultivation, and banking up, to which we must refer our many correspondents who have inquired on this subject; and last year we described minutely with figures, the mode adopted for saving trees already girdled. As we have many new subscribers, and as the season is approaching for applying this remedy, we copy these directions entire:

A number of young shoots or portions of the branches of apple trees are first provided, and as they are wanted, are sharpened in the form of a wedge at each end, being long enough to connect the upper and lower portions of the bark, separated by gnawing. A chisel, the breadth of which is about equal to the diameter of the shoots, is then driven into the bark, (say half an inch from the gnawed edge,) both above and below, and the prepared or sharpened shoot is then firmly pressed at each end into the cut made by the chisel. This is easily done by first bending the shoot outwards at the middle, so as to allow each end to enter, and then crowding it in again. The place must be then well waxed. The *edge* of the chisel must be placed so as to make a horizontal line in the bark, and then be driven nearly vertically upwards or downwards for the upper or lower parts of the bark. When the shoot is placed in the cut thus made, some portions of the line between the bark and the wood in both tree and shoot, must necessarily coincide, and as a consequence, the two parts almost invariably adhere and grow together—there is scarcely ever a failure. Fig. 1, represents a girdled tree; Fig. 2, the same with the shoots inserted; and Fig. 3, is an enlarged section, showing the position of the sharpened end of the shoot when in its place. The great advantage of this mode consists in the rapidity with which the work may be done, and the difficulty of displacing or knocking out these shoots when once in. There should always be a few stout stakes driven around each tree, to keep off plows, harrows or cultivators, which might otherwise strike the tree and loosen these shoots.

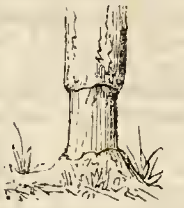
Fig. 1.

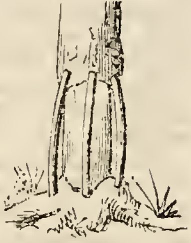
Fig. 2.

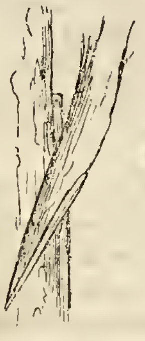
Fig. 3.

The shoots used were about one-fourth to one half an inch in diameter when applied, and they had already tripled their original size. Probably larger ones would be better, and the more numerous they are the greater will be the security, and the sooner they will grow and unite in one solid trunk.

In answer to our correspondents P. G. N. and J. C., we can inform them that the best time to perform this operation is in spring, at the usual grafting season, or as the buds begin to swell—and that girdled trees may be saved by covering the wound with grafting wax, soil, or compost, to keep it moist, without any other operation, provided a thin portion of the inner bark is left, even a mere film, as is often the case.

G. P. informs us he has nearly lost a fine orchard, and he proposes as a preventive, to peel rings of bark from forest saplings, two feet long, and allow them to dry till next winter, when a ring or tube of this kind is slipped around each tree, so that mice cannot reach the bark. This would probably answer, but *banking up* is equally efficacious, and easier.

* * *

Mulching Potatoes.

Editors Cultivator and Co. Gent.—I see much in your papers about raising potatoes, and I will state how I last season raised a crop, as it may be of some use to some of your readers. About the last of April I planted one-sixteenth of an acre of potatoes on the sod. I placed the potatoes 12 inches apart one way and 18 inches the other—covered them about four inches with rye straw, and then scattered some barnyard manure over them, so that they were covered about six inches. Before covering them, however, I put about a table spoonful of air-slacked lime around each potato. There were three or four stumps on the ground, and most of it was covered with moss. Nothing was done to the potatoes from the time they were planted until they were dug. The produce was 45 bushels—at the rate of 730 bushels per acre—without a rotten one among them—they were clean, and when cooked were as mealy as those in plowed ground.

This I call a cheap and good crop, and an early one too. Potatoes can be planted much earlier in this way than in the common method. The straw on this piece of ground is turned into manure, and the spot is now rich, and will come good again this year. John Moerschy. *Beech Woods, Sullivan Co., N. Y.*

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Fractions of an Acre for Experiments.

It is often very desirable to the farmer to measure off from a lot of land, fractions of one acre, for the purpose of making a series of experiments upon different modes of planting, cultivating or manuring. To facilitate this, we give below the measurement of the side of a square, containing the following fractional parts of an acre. A reference to this table will save some, perhaps, tedious calculation.

1-16	of an acre	contains	2,722½	sq. feet—about	52½	ft. sq.
⅛	"	"	5,445	"	" 73¾	"
¼	"	"	10,890	"	" 104¼	"
⅓	"	"	14,520	"	" 121½	"
½	"	"	21,780	"	" 147½	"
1 acre		"	43,560	"	" 209	"
2 "		"	87,120	"	" 295¼	"

We cannot but suggest to our readers the importance and advantage of combining with the usual duties of the farm, such experiments as may easily be conducted without any interruption of the work, and yet will often lead to the most decisive results. If one is to plant an acre of potatoes, for instance, divide it into quarters, and each quarter into eighths, if needed; and plant one part with small seed, another with large, another cut, and another whole; manure one part *in* the hill, another outside. On one quarter try *salt* to prevent the rot, on another lime, another ashes, &c. No man can do this without soon increasing his knowledge of agriculture, and soon after his wealth.

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Best Manure for Roses.

Messrs. Editors—If I cannot get guano for my roses, please tell me what manure is the next best. B.

Poultry and pigeon dung—any ordinary manure—the rose being a *free liver* luxuriates in rich soil. Providing capital horse dung is to be had in abundance, use that liberally—not without partial decomposition is not advisable, and but few will beat you. If yet to plant, dig and manure at least two feet in depth—if in a bed already planted, take off some of the surface soil, lay on three inches of rotten manure, then the soil. In the summer you can hardly have a more powerful stimulant to roses in poor land, than the drainage water from dung-hills and farm-yards. E. S.

Home-made Fertilizers.

"A Subscriber" at New Lebanon, correctly suggests the propriety of making use of the best of all our home materials for manure, instead of paying heavy prices for imported guano. We cannot, however, furnish him "a formula, with the exact proportions of each, for combining ashes, pond muck, night soil, droppings from fowls, salt and plaster, so as to make the best possible portable manure, that will tell quick," &c. Of all these substances, hen dung is the most concentrated and powerful, not being much inferior to guano, but it cannot be had in large quantities. Next to this is night soil, which is several times more powerful than ordinary yard-manure. All that these substances need is enough of a *dry*, absorbing substance, to retain all that would otherwise waste, pulverised charcoal being the best, but *thoroughly dried* loam or muck, or both, are as good, if in larger quantities, say three or four times the bulk of the manure. Pond muck varies greatly in its composition, and no general rule can be given for it—if it could be thoroughly dried it would be most valuable as an absorbent of other manure; but if applied wet, it may, in some cases, be of nearly no value. Ashes, salt and plaster, are often beneficial, but are to be applied in moderate quantities; and if used as component parts of the compost heap, they need not be in greater quantities than to make more than forty bushels of ashes, eight bushels of salt, or one bushel of plaster, per acre, after the compost is applied.

We never found plaster to possess the virtues ascribed to it, in sprinkling stables, and in other similar uses as an absorbent, *used dry*—and for the very simple reason, that it cannot be decomposed by the fertilizing portions of manure so long as it remains dry and undissolved.

Raising the Locust.

Messrs. Editors—What is the proper mode of raising the black locust tree for timber on prairie land? Can it be raised from seeds, and how, as to time, quantity to the acre, and manner of sprouting the same? On our Western prairies timber is very scarce, and we must resort to raising timber of some kind for fuel, fencing, &c. M. Plank. *Delphi, Carroll Co., Ia.*

The black locust, which is one of the many varieties of the Robinia pseud-acacia, is, with the exception of its liability to the attacks of the borer, the most valuable tree for timber. In most places the insect has disappeared, where it was formerly destructive. There is no question that it is one of the few best trees for the western prairies, to employ in timber plantations and belts. The protection which such belts will afford cultivated fields and crops, will compel landowners to resort to them, aside from the immense value they must attain as timber. We would recommend a mixture of locust, chestnut, European larch, and perhaps of some other valuable and fast-growing trees, so that if any disaster happens to one, the others may take their place.

The land should first be reduced to a state of good cultivation, because the trees will grow about ten times as fast for the first few years, if well cultivated, than if neglected and grass grown. Plant the seeds where they are to grow finally; in hills with corn, so as wholly to occupy every third or fourth hill, in every second or third row. They will be cultivated with the corn, and grow rapidly, and lose nothing by transplanting, which checks them much. By placing them in rows, they may be easily plowed or cultivated (with crops or alone) any subsequent year; and when the timber is thinned, the wagon is easily driven through between the rows, without cutting a road. It may perhaps be needless to inform our correspondent, that locust seed will not grow unless scalded and *swollen* in hot water; nor chestnuts, unless they are taken perfectly fresh, and kept moist.

Transplanting Evergreens.

Messrs. Eds.—Be good enough to inform me through your next "Co. Gent.," the best and safest time for setting out Evergreens, and inform me of some of the most hardy and thrifty kinds, and oblige, P. B. C. *Amelia C. H., Va.*

Spring is the best time—although we have been very successful in removing them in winter, always observing the essential requisite to carry plenty of earth with the roots. A neighbor planted out fifty, taking them up as trees are usually done, but without a mass of earth attached—and all died but one, which barely survived. At the same time, (except that a part were removed in winter,) we set out fifteen, all with enough earth to hold them erect when merely set upon the ground, and all lived and grew rapidly.

The best and hardiest evergreens are these: *European*—Norway fir, Scotch pine, Austrian pine, Silver fir, Bohtan pine, and Siberian Arbor Vitæ. *American*—White pine, Hemlock, White Spruce, Balsam fir, Red Cedar, and American Arbor Vitæ.

Coal Ashes as a Manure.

Messrs. Editors—You have doubtless given us your opinion of the value of coal ashes, but if so, it has escaped my notice. You have several subscribers in this place, who make large quantities, and who differ in opinion with regard to its value. Some tell large stories about experiments with corn on a small scale, and others maintain that it is good for nothing, and put it on the highway.

Most of them make it from furnaces which are kindled with wood, consequently a portion is wood ashes, from which all residue is sifted.

Will you be kind enough to enlighten us, that we may not waste them any longer if they will pay to cart. If they are worth saving, please state the best mode of applying them, whether by composting with muck or stable manure, or any other commodity, and what crops they are best adapted to—whether they will benefit lawns and meadows spread broadcast—on corn, potatoes, &c. placed in the hill; and what kind of land is best adapted to their use. J. W. F. *Milford, Ct.*

Coal ashes are valuable to a certain degree, and should not be wasted. They consist mostly of earthy materials,—alumina and silica,—with variable portions of gypsum, carbonate of lime, oxide of iron, sometimes phosphate of lime, and with more or less half-burned coal. They contain but little potash, and that mostly derived from the wood used in starting the fires. Different kinds of coal vary much in composition.

They may be applied as a top-dressing to grass lands in autumn or winter—and to cultivated soil and harrowed in. Or they may be mixed with the manure or compost heap. We prefer them to all other purposes, for using daily in privies, as they destroy nearly all the traces of bad odor if daily scattered on the deposits, and being dry, they absorb the water, and render them convenient for spreading.

Their effects will vary much with the ashes from different sources, and with their application to different soils, and we must therefore leave this point to the results of experiment.

Inquiries and Answers.

Timothy Hay.—Will you inform me and others, how many pounds of good timothy hay is equal to one pound of corn meal in nutriment? L. R. [According to both theory and experiment, the relative value of the two for ordinary feeding purposes, is about 50 pounds of corn to 100 of hay. Of course there must be variations with the quality of the hay, how fed, cut or uncut, wet or dry; and corn ground or unground, cooked or not, &c.]

Prunes.—Please tell me the best two or three varieties of plums for drying, to make prunes of. G. P. R. *Goshen, N. Y.* [The Prune d'Agen stands high in Europe—also the German Prune, Fellenberg, and St. Martin's Quetsche. Manning's Long Blue would doubtless prove a good sort.]

Horses.—Can you give me the post-office address of the owner of the horse Ethan Allen, and the Morgan horse that received the first premium at the last show of the United States Agricultural Society. E. S. H. Cobb. *Hamlinton, Wayne Co., Pa.* [We do not know the address of the owner of "Ethan Allen." The prize referred to, at the last U. S. Ag. Society's exhibition, was awarded to "Sherman Black Hawk," owned by Lemuel North, Champlain, Clinton co., N. Y.]

Culture of Grapes and Apples. — What books can I get that will give me the best information on raising grapes and apples? Is black gravel, sandy soil, with south-eastern exposure, the right kind for grapes? Will it also do well for apples, peaches, &c? V. M. Metcalf. *Athens, Tenn.* [As a general rule, any soil that will grow good corn, will raise a good apple orchard, provided that for several of the first years the young trees receive the same plowing, harrowing, and clean cultivation generally, that is required for a good crop of corn. The same kind of soil will do for grapes, provided it has a dry sub-soil, is loosened deeply, and made very rich. We may recommend Buchanan on the Grape, and the American Fruit Culturist as suitable books.]

A Ten Dollar Sewing Machine —In answer to numerous inquiries elicited by a brief notice of a machine on exhibition in this city, we may say that we know nothing of its practical workings, while the city papers announce that an injunction has been served upon its maker for the violation of other patents, and that any one using it will do so at the risk of prosecution.

Beardless Barley.—*J. S. J.* You can procure the seed of this Barley from I. W. Briggs, West Macedon, Wayne Co., N. Y.

Poultry.—*W. W. H.* The better way to decide your question will be to try the experiment yourself, as it will cost but little. The profit will depend mainly upon the care you bestow upon your fowls. If they are properly fed with a suitable variety of food, and their yard and roosts kept clean and sweet, it will probably pay to keep a few for your own use, but they are apt to become diseased when close confined.

Oyster Shells.—Would oyster shells be beneficial to crops if pulverized without burning, and would they be worth more or less than burnt shells? Yours, N. E. C. *Ellington, Ct.* [As they contain, when unburnt, a small portion of animal matter, they would have more of the elements of fertility before burning, and would therefore be worth more, if they could be finely ground, so as to become intimately diffused through the soil.]

"Short Awn Horn Grass."—I wish to inquire about a kind of winter grass that was introduced to the Farmers' Club of New-York by B. V. Iverson, described in volume of Transactions of the American Institute of 1854, on pages 448 and 454 of said volume. I have watched the eastern agricultural papers to see if it had been tried any where, but have not seen any account of it. If you know any thing about it and its success, I wish you would notice it in your Co. Gent. If it is what Mr. Iverson describes it to be, and would agree with this climate, it would be very valuable in this section. Cattle and horses do well on our prairie grass until frost comes, and that spoils it. F. B. *Cedar Lake.* [This grass was described by Mr. Iverson, in the Co. Gent. and Cult. for 1855, but we have never heard of any trial of it at the north.]

Disease in Pigs.—I have lost several pigs, from two to five weeks old, when they were sucking—one litter of six three years since, that would weigh 25 lbs. each, and generally from one to three out of each litter, and at all seasons—generally the best. Will you inquire into this business, and give me a remedy if possible? Symptoms—weakness in every part of the limbs—no action in stomach—blood becomes stagnant, and hard breathing. I have broken off their teeth, given oil, exercised them, and cut off their ears, which will help them so that they will live sometimes a week. W. A. Patterson. *Piermont, N. H.*

Potato Planter—Is there any machine to be had with which we can plant potatoes, that you know of? A. L. *Winspear, N. Y.* [We know of no such machine.]

Prices of Fertilizers.—A correspondent wishes us to publish a list of the prices "of the different fertilizers manufactured in our vicinity." The only manufactory of this kind, in this vicinity, is that of bone dust, the prices of which vary from $2 to $2.75 per barrel, according to fineness and the amount taken. For prices of other fertilizers, see advertisements.

Pratt's Ditch Digger.—*H. L. W.* For answer to inquiry in relation to the merits of this machine, see Co. Gent. of Jan. 22, p. 61—or Cult. for March, p. 79.

Patent Roofing.—Can you inform me if E. P. Russell's patent roofing can be had in your city, and if so, who the proprietor is? Robert Holmes. *Johnson, Vt.* [The receipt for the manufacture of this roofing, we are told is for sale by Z. M. Sanders of this city, whom address.]

Saw Mill and Shingle Machine. — *S. W. H., Winchester, Tenn.* We are unable to furnish the information you ask for in relation to these machines.

Currants for Seed.—I would like to be informed whether currant seeds will produce the same variety of fruit as that from which they were taken. J. F. S. [Seeds of the currant generally produce fruit very nearly the same as the plant—they vary slightly, more or less, and in this way new and distinct varieties are gradually obtained. But superficial observers would not generally see any difference, and would pronounce them identically the same.

Clover Seed Cleaner.—I noticed in the last Co. Gent. that the question was asked, which is the best machine for cleaning clover seed, and price. I would recommend the machines made by T. Church & Co. of Penn.; I have been using them for the last year, and they have given good satisfaction. Price at shop, $55—freight on them to Albany, from $8 to $10. Jas. Haroway. *Richmondville, N. Y.*

I would like to ask your numerous readers if any of them can inform me of a cure for a disease among hogs, generally called "the thumps." A neighbor of mine lost $100 worth of hogs last year by this disease. It usually attacks pigs or shoats weighing from 30 to 100 lbs. Various remedies were tried or experimented on, but none seemed adapted to this peculiar disease. J. F. S. *East Orange, O.*

Capons.—I have frequently seen in New-York markets, fowls called "Capons." Please inform me how to proceed to make a Capon out of my roosters. A Sub.

scriber. [We published in The Cultivator, 12 or 15 years since, a full description of the operation, with illustrations; but as there may have been some improvement since, we shall be obliged to any one who will give a satisfactory answer to the question of our correspondent.]

Scientific Farming.—I am a young practical farmer, eager to learn all I can about farming. In the course of my agricultural reading, I meet with the term "Scientific Farming." I feel at a loss to know the full meaning of the term. Will you, or some of your correspondents, enlighten me on this subject. J. W. L. *Frenchtown, N. J.* [The term "Scientific Farming" is often used quite vaguely, and with little appreciation of its true meaning. Strictly speaking, it is a union of *systematic practice*, with the knowledge which other sciences have usefully rendered agriculture. Agricultural chemistry, vegetable physiology, &c., are instances of *other* sciences applied to farming; but agricultural science itself, is a systematic arrangement and application of all the knowledge that both science and practice have developed—under which may be classed the principles of Rotation of Crops, of Plowing and Subsoiling, of the Manufacture and Application of Manures, Sheltering Animals, Breeding, &c. A mere collection of isolated facts, even if it should include all that is known in practical farming, is not the science of agriculture; but this knowledge *systematically arranged*, so as to be rationally applied.]

Grass for Pastures.—I wish to learn from you, or some of the numerous readers of The Cultivator, which is the most profitable grass to stock down a pasture with. Soil, slate loam. J. M. Parker. *West Pawlet, Vt.*

Stump Pullers.—*B. P. C.* For price of stump pullers, address W. W. Willis, Orange, Mass., or R. H. Hall, Owego, N. Y.

Sowing Plaster.—When is the best time to sow it? Some say in the winter; others in the spring. Will it benefit winter wheat to sow plaster on it in the fall? Does it kill the strength of plaster to grind it very fine? Does it lose its strength by keeping? When ground, will it benefit all kinds of land? What quantity should be applied? Francis Robertson. *Rheatown, Tenn.* [The best time to sow plaster is early in spring, or at the time the clover is starting to grow. It often succeeds finely sown later, or when the clover is a few inches high, if immediately washed by rain into the soil; but early sowing more uniformly succeeds. We have repeatedly heard the assertion that it benefits wheat if sown in autumn, but we have no experience nor distinct authenticated experiments to prove it. Plaster is always sulphate of lime, in the same uniform proportion, and neither fine grinding, nor long keeping, ever alters its composition or character. It does not benefit all soils alike—trial is needed to determine which—but most soils in this country are decidedly assisted. A bushel or two per acre is enough—in most cases a bushel has been found as good as any larger quantity.]

Osage Hedges.—Will you, through The Cultivator, inform me whether the Osage Orange will stand our climate of north line of Pennsylvania. I have a nursery, last spring sowing. It has been said that they kill out. Should you think they won't stand the winter, what other kind is best? C. Kimball. *Tioga Co., Pa.* [Northern Pennsylvania has severe winters, but we think the Osage Orange would succeed well as a hedge even there, provided the growth ripens, and is not prolonged too late in autumn by planting on warm *mucky* soils. Let the hedge be planted over or near the line of an underdrain, and it would be less liable to injury. We have seen a hedge growing on dry soil, and consequently with well ripened shoots, that was not killed back six inches by a cold twenty-six degrees below zero. *Succulent* growth has been killed two or three feet by less severe cold. A partial cutting back by frost does no harm, as hedges generally are allowed to grow too tall, and a proper shearing will take off all the dead parts. Our correspondent will of course remember that the great cause of failure, (besides the omission of shearing,) is *neglected cultivation*—the soil must be clean and mellow, or but little growth can be expected. We know of no better hedge plant.]

Peat.—Will the editor be good enough to state the peculiar qualities of *peat* as distinguished from swamp muck—to satisfy several inquirers? J. W. C. [Peat differs from muck in its degree of tenacity or cohesion. Muck is vegetable matter like peat, but is friable and crumbles to pieces. Peat may be cut into solid blocks of any form—it may be *coarse* or *fibrous*, or it may be fine and *compact*—when very compact it even admits a polish.]

Bone Manure.—I wish to learn the best way of using old bones under ground. I bought a quantity last spring. I put some into hen manure, and let it lie to ferment, as directed in the Cultivator, but it did not. Can you inform me on the subject. C. K. [The most certain way to use bones, is to break and dissolve them by sulphuric acid, as we have recommended in former years. Next best, is either to grind the bones to dust, or dissolve or soften them in wetr ashes, afte being broken up, several weeks being required.]

Registers for Ventilation.—Be so kind as to inform me where I can procure Registers for the purpose of ventilation, and also the price. M. P. *Carroll Co., Ind.* [They may be procured of Richardson & Boynton, of Broadway, New-York, and may be ordered through most of the stove and hardware dealers, in large towns and cities, to whom they are mostly furnished at wholesale prices, and who should therefore sell them at New-York prices. The price varies with the size—the smaller, circular ones, (for small rooms,) costing we believe not far from one dollar—and other larger, up to two or three dollars, or more.]

Orchard Grass.—I would like to ascertain if any one has used orchard grass in an orchard, as far north as Troy, N. Y., and what kind of a sod it makes, and whether stock eat it well. A. S. [The orchard grass is hardy in any part of the United States; it makes a good sod, grows better in the shade than most grasses, and stock eat it well, provided it is kept pastured short. When the stalks become old, they are hard and tough.]

Black Knot in Plum Trees.—I have about fifty plum trees of the most choice varieties, that are just coming into bearing, and begin to show marks of this disease. I have a wash prepared for them, composed of flour sulphur, soft soap and chloride of lime. Do you think it will injure the trees? L. F. [It will not. Strong chloride of lime alone we have found useful to apply to the wounds after cutting—but cutting off is the main remedy—let the trees be examined every week, and all diseased parts removed as soon as they appear—this is a *certain remedy*, if timely applied.]

Mixing of Seed.—I intend to plant some seed of the Chinese sugar cane, principally for the production of seed. Is it safe to plant it in the immediate vicinity of Indian corn? Is there no danger of adulteration? [There is none. They are different genera, and cannot mix.] The same question I would be glad to have answered in reference to growing turnip and cabbage seed near together. I noticed a remark in one of your late numbers, that a uniform, well-headed cabbage patch is rarely seen. May it not be that one of the causes of this is here indicated? Iota. [They are different species of the same genus—within which crossing sometimes takes place, but we cannot say whether this rare occurrence ever happens between the cabbage and turnip.]

Tomato Worms.—If you can point out some easy method of getting rid of the large green worms on tomatoes, or preventing their ravages, it will be vauable information. Iota. [Probably the simplest, easiest, and certainly the most secure, is simply to *kill* them—we know of no better way.]

Sulphur for Cattle.—I wish to know if sulphur, when fed to cattle, is injurious? If not, in what quantities should it be fed, and what are its effects upon young cattle when fed in too large quantities? A Subscriber. [Sulphur is regarded as a useful medicine for cattle, being laxative and diaphoretic—and, combined with sassafras, a useful alterative. Half a table spoonful is administered daily. It is good for diseases of the skin, and we have been informed, will repel lice. If fed in much larger quantities than here mentioned, it will weaken and injure.]

Ventilation, &c.—I am about to erect a dwelling-house, which I desire to warm and ventilate in the safest, most economical, and most convenient manner, and I wish to learn all I can upon the subject. Can you refer me to any book which gives the desired information? P. R. A. [We do not know of any American work, or any work adapted to the peculiar wants of this country. Our correspondent will find much on warming and ventilating, in the last chapter of Downing's Country Houses; but a considerable portion of it is only adapted to city structures. Still, there is much valuable suggestion.]

Osage Orange from Seed.—I wish to raise some Osage Orange plants for a hedge, and would like to know when is the best time to plant or put in the seed. In the spring of 1855, I planted, after they had been in soak for three days, and I supposed that they had come tolerable well. The spring following I perceived that not more than two-thirds had come the first season—the remainder the next. I have some quarts of seed, and think of putting them in sand and let them freeze, and sow in the spring. L. C. *Monroe Co.* [We have had no difficulty in making the seed come, by soaking it for 48 hours in warm water, when planted in the spring. Wm. Neff of Cincinnati, however, recommends planting in autumn, as he had found a considerable portion of his seed planted in the spring did not come up until the second season.]

Washing Machine.—Would a washing machine wash well, made in the form of a long box, with wooden rods passing through near its ends, and the box sliding quickly back and forth, the clothes and suds striking against the rods? [We think this would not succeed well. The best washing machine we know, and which we have now used ten years with great economy and satisfaction, is figured and described in the Annual Register for 1857, page 339.]

Churning Milk and Cream.—Which is the most profitable for a farmer in churning by water, to churn the milk or the cream; whether the milk must be churned when new, or whether set in pans, or in some large vessel; and if so, how long; and which is the best churn, a stone one or a wooden one; and in how large quantities of milk at the most? A Subscriber.

Stocking Knitter—Roofing Cement.—Could you inform me where and what price the most approved "Stocking Knitters" are to be obtained? Also what Cement preparation for roofing has been found the most durable and reliable in all weather? J. P. *Whitestown, N. Y.* [Will some of our correspondents please furnish the desired information?]

Does Freezing always Spoil Potatoes?—During the past severely cold winter, many in these parts have lost their potatoes in consequence of freezing. It is claimed by some that if potatoes are well covered up, either in barrels or bins, and allowed to remain so until thoroughly thawed out, that the freezing will not materially injure them. For the truth of this theory I cannot vouch from actual experiment, but it is easily tried, and if true, it is something worth knowing. W. E. Cowles. *West Winsted, Ct.*

Mildew on Gooseberries.—I see by the papers, many complaints of the mildew on gooseberries. I have found that, for bushes that were affected by it, to scrape off the rough bark in early spring, and apply soft soap freely to the trunk, branches and roots, as far as you can reach them, to be a certain cure, and to water young bushes with soap and water frequently during the summer, a preventive. L. Fairbanks. *Whitly, C. W.*

Legs of a Colt Affected.—Can you inform me what is the matter with a colt we have, and what will *cure him*, or what is *best to try*. He does not seem to have the use of his hind legs. If he attempts to back quick, he will be very apt to fall. In fact he cannot raise his hind feet when he steps backward. If he lays down in a stable, he cannot get up without help; and when he walks or trots he swings back and forth with his hind legs and back part of his body. If you can tell me what is the matter, and what will cure him, you will oblige at least one of your subscribers. n. g. p.

Curing Millet.—In answer to your correspondent J. S., in reference to the best mode of cutting and curing millet for fodder—my experience has taught me that the best time to cut it, is when the seed in the top of the head is turning a very little yellow; then mow it, and let it partly cure in the swath; then rake it with a revolving rake, and put it in cock; then proceed with the finishing process of curing, the same as with making clover hay. A. H. *Jonesville, N. Y.*

Dogs.—If Mr. J. M. Parker cannot find a rat terrier, and can find a thoroughbred bull terrier, he will do as well, as he will have a *dog of all work*. They have all the sprightliness, sagacity, quick scent, and affection for master and home, that a rat terrier possesses, with all the courage of a bull dog, without his surliness. I have one that keeps my premises clear of rats, and my poultry-yard clear of night visitors. I have known him to kill a skunk at one snap, so quick that it forgot its weapons, and the dog returned from the contest unperfumed. Although a small dog, I never knew him to hesitate to catch any animal when bid, and yet he is under perfect subjection. L. R. *Fredonia.*

Question.—Can some of your readers inform us as to the propriety of harrowing old meadows to render them more productive? At what season of the year should it be done? E. O. H. *Lockport, N. Y.*

Churns.—"A Windsor Co. (Vt.) Farmer," sends us an article on Butter-making, the main object of which is to recommend a patent churn, which he has used to great satisfaction for two years. The writer says he does not know the patentee, and has no interest in the churn, but feels it his duty to speak out in favor of an article he has found so valuable. We do not doubt the churn is a good one, and we have already permitted it to be twice highly recommended in this paper. But now we think it best for the patentee to advertise the merits of his ware, at his own expense.

Washing Fluid, &c.—If you think best, say in your paper, that washing fluid, containing Spirits of Turpentine, should never be used—neither should Emetic Tartar be taken into the human stomach. E. Maxson. *West Edmeston, N. Y.*

Lemuel North of Champlain, N. Y., has disposed of his interest in the famous horse "Sherman Black Hawk." He is now owned by D. A. Bennett of Bridport, Vt., and D. Warren of Worcester, Mass., and will be kept at the stable of Mr. B. in Bridport, the coming season.

How to Improve Old Meadows.

MESSRS. TUCKER & SON—On page 139 of the Country Gentleman, there is a communication from Mr. TROWBRIDGE of Oneida county, on the subject of improving meadows. As every plant that is cultivated is more or less dependant on grass, as well as animals and even man himself, it is with no ordinary degree of reluctance that I approach the subject. Mr. T. says, "his practice has been for some years to mow about the first week in July; let the after crop stand until from the 1st to the 18th of September, then turn it under carefully, spread on from ten to fifteen loads of well rotted manure, prepared beforehand, and sow from twelve to fifteen quarts of herdsgrass seed." He considers the green crop he turns under as good as ten loads of manure to the acre. There must be some mistake. Is it possible that sufficient grass grows after mowing, to the middle of September, to equal ten loads of manure? If so, there is no need of improving such a meadow. If Mr. T. means that the sod he turns under is equal to ten loads of manure, he must have a very thin, starved sod if it would not be equal to four or five times that amount. This plowing up meadows in Oneida county, where a drouth is unknown, does not strike me very favorably, and I would suggest other remedies for Mr. T.'s consideration. Would not the ten or twelve loads of well rotted manure prepared nicely, spread as a top-dressing, answer the purpose? If not, plow up some sod along the road side and burn it. A common laborer can average one hundred bushels per day the summer through, with no other expense than two or three pieces of old rails or stumps to start the fire; when got agoing, keep putting on sods day after day until the pit is done. Spread one hundred bushels to the acre; which will cost one dollar for the day's work, and two dollars for a man and team to haul one day and spread, making three dollars. This is much cheaper than Mr. T. can plow up, cultivate, pick stone, and roll, with much better hay. The new seeded will be coarse for one or two years at least, and cattle and sheep will not do more than half as well on such hay as on fine solid grass, grown on an old thick sod. If the bulk of the new seeded should exceed the old, the substance would not be there. If there is no place on the road-side where you can procure sods for ashes, then take the washings of the road, or what is called quick sands, that have washed from the hills or fields, (though nothing will grow on a bank of quick sand,) which is one of the best materials, after barn-yard manure and ashes, which I have tried for mulching grass roots. Spread it on dry, and when the rain comes it makes the same material which the Mohawk, Chemung, Ohio, or Nile leave, after overflowing their banks, and in a few years your meadows will become as fat as those along the banks of those rivers. When the time comes that the raising of grain is more profitable than the cultivation of grass, you will have a sod to plow in sufficiently thick to make one hundred loads of manure to the acre, with a great advantage over the meadows which have been renovatod by those rivers, as every overflow washes the sediment off the plowed land.

If neither of the above remedies meet with favor, I would suggest still another, and that is to mow and pasture in the same field—by putting in cattle sufficient to eat off a portion of the grass, then mow what is left, part early and the balance late. If you have thistles, daisies, or weeds scattered over your field, or any thing else which you wish to destroy, mow those portions first, as nothing but grass can stand the scythe for any considerable length of time unless allowed to seed. Fatting cattle by this process will enrich land very fast.

In conclusion, if nothing else will answer, and the meadow must be plowed up, I think I can suggest a more profitable way than to seed without any crop. Believing as I do, that there are crops which grass seed will take with quite as well as without, I would take the ground where Mr. T left it, plowed well in the fall, and in the spring sow it to spring rye. Instead of sowing twelve or fifteen quarts of herdsgrass only, I would mix with it two quarts of red clover, two quarts of white clover, and four of red top; not that I am an admirer of red clover for either pasture or hay on natural grass land, but it helps to cover all the vacant spots that would be left by timothy alone. It is a great advantage to keep out all foul trash, and the additional grasses are worth something for feed. The rye grows so far from the ground without leaves that there is no danger of smothering the young grass, and it makes a shade to prevent the hot sun from injuring it. The rye would give from twenty to twenty-five bushels to the acre, worth at least six shillings per bushel, and one and a half tons of straw, worth three dollars per ton, which would leave a large profit over seeding without a crop. The top-dressing is undoubtedly the most economical way of using manure, as I have no doubt that one load spread on the top of the ground where the land is seeded, in three years time will make a richer sod to plow under, than two loads plowed in, and I would not take much pains to rot it. I would take great pains to throw plaster all over the yard, and have a portion of my hay cut sufficiently late that a part of the seed would grow. I would feed that occasionally, and see that it was scattered evenly over that portion of my manure which is intended for top-dressing, keeping the ripe hay entirely away from manure which I intend to plow in, which is all for crops that I hoe, and none other. A. B. DICKINSON. *Hornby, N. Y.*

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A Word about Potatoes.

I noticed in THE CULTIVATOR for Feb., 1857, a correspondent under the cognomen of R., Danvers, Mass., gives some good practical lessons for raising some very good crops; but he appears to me to have partially failed in his potato crop. I think I can teach him, and perhaps some others, something about raising potatoes. I have been experimenting more or less with potatoes for about 30 years, and I have come to the conclusion that there has been no infallible remedy found out to prevent the rot—and that the best and largest crops of potatoes are raised on a pretty dry gravelly or sandy loam. If R. will choose such a soil, whether stubble or greensward — draw on about 20 cords of good horse manure as soon as the ground is settled in the spring, say the last of April or first of May—spread it evenly over the ground, and then plow it in about nine inches deep—drag it over a little—mark it out with a one horse plow three and a half feet each way, and about two inches deep, and then cut his potatoes so as to leave two eyes on each piece, and drop three pieces in a hill, and the pieces three inches apart in the shape of a diamond, where the rows cross each other, and then cover with two inches of dirt; and as soon as they get three inches high, cultivate between the rows, and hill up a little, or nearly or quite covering the top, making a rather broad flat hill; and when they get about a foot higher, give them another good cultivating by going twice in a row each way, and give them another thorough hoeing, raising the earth up about three inches higher, making a rather flat hill of about 58 inches in circumference; then if many weeds start up, go over the ground with the hoe before any of the weeds get over two or three inches high, but be careful and not bruise any of the vines. Then leave them until they are ripe or the frost has killed the vines, and I can almost insure him from two to three hundred bushels, where he gets but 175 now.

I have raised from 300 to 500 bushels per acre by the above management in favorable seasons, of the old fashioned pinkeyes, the best eating potato that I ever tasted, but I would advise every one to choose that kind best adapted to the soil, for I find every kind of potato does better on one kind of soil than it does on many others. A FARMER. *Thornhill, Onondaga Co*

Notes for the Month.

Direction of Fruit Packages.—Our correspondent E. L. R., of Baltimore, is informed that packages of fruit, &c., intended for Union Springs, should not be sent to Albany, but directly to the former place, which is 180 miles west of Albany. They should be directed, "J. J. Thomas, Auburn, N. Y., by Mundy's line to U. Springs."

We can also state, in answer to his inquiry, that Union Springs is not a "fashionable watering place," but a commercial village on the banks of Cayuga Lake, deriving its name from two springs of water, of ample size to drive two large grist-mills, a plaster-mill, saw-mill, &c., which possess the advantages of never freezing, and of being undisturbed by floods. In addition to these remarkable springs, the place has been long noted for its extensive bed of plaster or gypsum, and its quarries of limestone—the latter having already furnished nearly a million tons for building purposes. mostly along the line of the Erie Canal, with which Cayuga Lake is connected in navigation. The village has also a manufactory of excellent draining tile.

Allen's American Short-Horn Herd Book.—We can now supply copies of this work, which should be in the hands of every one interested in this breed of cattle—price for Vol. I, $3—Vol. II, $6—for the two Vols. $9.

Cattle Chewing Bones and Leather.—A correspondent near Bridgeport, Conn., has a piece of worn-out land, and his cattle do not thrive on the hay from it—chewing bones, leather, &c., for hours together. He desires a remedy for the evil, including of course the best way of enriching the land.

Weights and Measures.—"Who is right," is informed that we can find no such erroneous table of weights and measures in the Cultivator, as he refers to. If he will name the vol. and page, we will make the necessary correction.

South Down Mutton.—We are indebted to Samuel Thorne, Esq., of Thornedale, Dutchess Co., for a saddle of mutton from one of his beautiful South Down sheep—a breed which has no equal for the richness and delicacy of its mutton. Its weight was 52½ lbs.

Dioscorea batatus.—J. B. Garber of Columbia, Pa., a very intelligent and well known cultivator, gives his experience with this famous plant, in the last No. of the Horticulturist. He has had the root cooked, and considers it better than either the Irish or Sweet potato. He entertains high hopes of its great success—thinks "its yield *must be* enormous".—and intends to plant all the small tubers, "with every *prospect* of great success." We hope he may not be disappointed; but we have always had the odd notion of regarding with more importance, the results of experiments already performed than those in "prospect." The trial of its flavor, however, he has already made, and is certainly worthy of attention, as his statements are fully reliable.

"Clover Seed" from the Sandwich Islands.—We are indebted to Frederick Dupont, Maliawoa, East Maui, Sandwich Islands, for seeds of a plant which is there highly esteemed, and goes by the name of "Spanish clover," though Mr. D. says he does not remember ever meeting with it in any of the Spanish colonies of America. He says—"Its leaf resembles that of the red clover, but I think it has much larger roots. It stands drought remarkably well, but whether it will stand your cold winters remains to be proved. If it will, I am confident it will yield twice as much as red clover. We had an uncommon dry summer the past season, and had it not been for this clover there would have been a loss of some thousands of cattle; but things have a fine look at present (Dec. 6, 1856,) and farming is going on briskly. The natives are engaged in putting wheat quite extensively."

Cattle Sales.—Dr. Wendell of this city, has recently sold his fine young Short-Horn bull "Beaufort," by "Lord Ducie," to Mr. D. B. Holcomb of Chester, Mass. Beaufort is a good animal, and will not fail to make his mark.

The Devon bull "Wyandotte," 20 months old, bred by C. S. Wainwright, Esq., Rhinebeck, passed through this city last week, to Elyria, O., having been purchased by Charles Ely, Esq. He was a very fine animal, and does great credit to his breeder.

Seedling Potatoes.—We very cheerfully invite attention to the advertisement of Rev. C. E. Goodrich, who has devoted much time and money to his experiments in raising seedling potatoes.

George Hartshorn, Esq., of Locust Grove, Rahway, N. J., has recently purchased of Daniel B. Haight of Dover Plains, Dutchess Co., N. Y., three fine Short-Horn cows, in calf to his fine young bull "Highflyer," (A. H. B. 528,) one of the best bulls in the country. Highflyer was purchased of Samuel Thorne of Thornedale—sired by "Duke of Gloster" from Mr. Thorne's imported cow "Dinah Gwynne." We consider this purchase a valuable addition to the Short-Horns of New Jersey.

First and Second Report of the Noxious, Beneficial and other Insects of the State of New-York—Made to the State Agricultural Society, pursuant to an Appropriation for this purpose from the Legislature of the State. By Asa Fitch, M. D., Entomologist of the N. Y. State Ag. Society; Member of the Entomological Society of France, &c., &c.

Those who have been in the habit of reading Dr. Fitch's articles in our columns will need no recommendation from us, of the clear, plain and practical manner in which they are written, and the thorough knowledge they manifest of every point discussed. The above volume has been issued in excellent style, and a few copies placed on sale at our office. Price by mail, post-paid, $1.25.

John T. Andrew, Esq., of West-Cornwall, Ct., has purchased of the estate of Charles Tracy, Esq., of Round Hill Farm, Lisbon, Ct., the beautiful Devon cow "Fancy," and also the Devon heifer "Alice," both of which have taken first prizes, and are among the best Devons of the State. T.

Good Hogs.—Mr. Elihu Gifford of Easton, N. Y., has recently slaughtered and sold ten hogs, whose separate weights were 623, 533, 458, 407, 557, 438, 498, 500, 505, and 515 lbs.—average, 503 lbs.—total, 5,034 lbs.

Skeleton of Black Hawk.—The remains of this celebrated horse, who it will be remembered died in December last, at the stable of his owner, David Hill, Esq., of Bridport, Vt., have been disinterred, and the bones cleansed and prepared for preservation in the museum of the Veterinary College of Boston.

Valuable Herbarium.—Mrs. Riehl, widow of the late Nicholas Riehl of St. Louis, has in her possession, a most valuable Herbarium, containing seven thousand specimens of plants, divided into three parts—first, those from Switzerland, the Alps, and Pyrenees—second, those of Europe, and third, those of the United States—all in good order. A purchaser is wanted for this valuable collection, which will be sold at less than half the cost of its collection and preservation. Address Emil Riehl, St. Louis, Mo.

Distillation of the Beet.—We see it stated in our last English papers, that over $10,000,000 in value of beet-root spirits were distilled in France the last year, while the amount in 1853, was only $100,000—thus showing the entire success of the business. This success has induced the excise commissioners of England, to establish an experimental beet-root distillery, which is now in operation in Farningham in Kent, and which promises to equal the expectations which have been excited in regard to it.

Fruits and Vegetables of Oregon.—Extract of a letter dated St. Helens, Oregon, Dec. 5, 1856:—The past season has been very wet and cool, but the crops are all good. Our potatoes are *very* good. I have many weighing from three to four pounds each, and one weighed five pounds. I have ruta bagas weighing any weight up to 35 lbs., and other vegetables in proportion. We have some monster apples and pears here, weighing over two lbs. I have an apple tree, six years from the bud, and four years transplanted, which, at two feet from the ground, measures four inches in diameter, and this season I took from it 36 dozen apples and sold them for one dollar per dozen—variety, the Rambo.

Wheat in Vermont.—The Vermont State Ag. Society at its late meeting, awarded premiums to Nathan Cushing of Woodstock and N. A. Fletcher of Bridport, for winter wheat—to the former for forty-two bushels per acre, and to the latter for forty bushels per acre. Both grew the same variety—the White Flint. These awards show that wheat can be profitably grown in Vermont, while it is well known that no state in the Union produces better crops of Indian corn, rye, oats, potatoes, &c., or affords better horses, sheep, butter or cheese. With such capacities for production, with a wholesome though rigorous climate, and with the best facilites for getting their products to market, it surprises us that such numbers of its people are constantly pouring forth from its borders in the hope of bettering their condition in the far west.

A Good Cow.—If you please you may publish the following, which I received directly from the owner of the cow, and who is a reliable man. Samuel Brand of Leonardsville, Madison Co., N. Y., says he has a cow (kept on grass only) from which he milked sixty-two pounds in a day last June, and she gave the same quantity for three days in succession, with the exception of a half of a pound. Said he made eighteen pounds and fourteen ounces of butter in a week from her. Beat that who can. E. M.

Large Turkeys.—It did not occur to me while in your office, that I had the weight of the turkies grown by Jerome Pike, Esq., at Pomfret, Ct., from the same stock Mr. Allin has, and will now send it to you. I saw them weighed when sold:

16 goblers weighed,	272 lbs.
6 hens do	64 "
	336 "

Five of these goblers weighed 106 lbs. dressed. G. T.

Muriate of Lime.—Has Gould's muriate lime reached any of your farmers yet? I bought a couple of bags last year, and used it according to the directions; but it killed my cabbage, pumpkins and squashes, and also made me dig forty or fifty hills to get a bushel of potatoes—so I shall not praise it. When will the makers of artificial manures learn to be honest? Guano does very well with me, but, query, does it not require a little more of it per acre than has often been represented? L. Butterfield. *Tyngsboro, Mass.*

Large Pig.—I slaughtered a hog, 8th Dec., 1856, which weighed when dressed, 562 lbs.—19 months old—he was kept for a seed hog until the latter part of June last, and had nothing more than ordinary keeping till that time. John C. Decker. *Kerhonkson, N. Y.*

Reapers and Mowers.—According to statistical tables furnished by the Chicago papers, there were manufactured in that city in 1854, 1,800 reapers and mowers—in 1855, 3,286, and in 1856, 5,866.

To Prevent Cows from Kicking.

Messrs. Editors—I have owned for the past three years a cow that was very valuable for her milking qualities, but very troublesome on account of her kicking propensities. After I had made up my mind to dispose of her on account of her bad habit, I happened to employ an Englishman, to whom I gave the advice of caution upon his first essay at milking. He smiled and said he could easily prevent that, and proceeded to pass a rope about her body just in front of her bag, tying it in a simple knot upon her back. The rope was not drawn very tight, and to my utter surprise the cow stood perfectly quiet through the process of milking, not as much as offering to raise her foot. To test the remedy I directed him the next morning to intermit the use of the rope, and she immediately returned to her old habit. I had previously tried the method suggested in the Country Gentleman some weeks since, of tying up the fore leg, but without avail. She would still attempt to kick and in the effort throw herself. I have not had the opportunity of testing it with any other cow, but as it proved so entirely successful in the instance named (and my man informs me he has seen it repeatedly tried and with uniform success) that I have thought proper to give you the result of my own experience, hoping that others may be equally profited by it. A. C. Powell. *Syracuse.*

Soft Soap.

To observe the following rules, women will not have many failures in making good soap:

In setting leach, raise a perforated bottom just above the hole where the lye escapes. On that, place straw enough to prevent the ashes from going through. Then throw in about one peck of slaked lime, leveling off the same over the straw. Put into the centre of your heap of ashes about one half bushel of lime to ten of ashes. Slake the lime and mix well with ashes. Fill your leach, pounding down the ashes as hard as your strength will permit, or at least that the lye will not get through in less than three days. On the top of the ashes put some straw and flat stone on which to pour water. Thus completed, commence with water, but not rapidly, for the longer it may be soaking through, the better will be the lye.

Your leach being prepared, turn your attention to your grease, which is most generally a poor article. Twenty pounds of good tallow is required for a barrel of soap, and it is often the case that fifty pounds of common house grease has not the body of twenty pounds of tallow. You should, in order to know the *real* quantity of good stock you have, always boil and clean your grease, and throw all the refuse away, for it is valueless in making soap, and is generally the great cause of preventing the perfect amalgamation of the grease and lye, containing, as it always does, more or less *salt*, which is a positive bar to making *soft* soap, while an absolutely necessary ingredient in the manufacture of *hard* soap.

Having then got a clean grease and good caustic lye, such as you will have from a leach filled as above suggested, you will have no difficulty, over a gentle fire, of having good soap in a few hours.

Practical soap boilers have no guide for the quantity of lye for a certain quantity of fat, as the lye differs much in its strength; they rely therefore entirely on their taste. In making soft soap, when it boils up black in its color, it has generally lye enough, and should then be increased by weak lye. Adding water is wrong. Soap should always be increased with lye, no matter how weak the same may be. A. C. W.

Butter per Cow.—The three dairies which received the prizes of the Caledonia Co. (Vt.) Ag. Society last year, averaged 198⅓ lbs.—173⅛ lbs., and 150 lbs. per cow.

Trial of Stump Machines.

Messrs. Tucker & Son.—We have a stump machine manufactured in this place, (Owego) which we think superior to anything ever yet presented before the public. It is easily conveyed from place to place by one horse, which is all that is required in horse or ox labor, and with the additional labor of two men and a boy, is capable of pulling the largest kind of stumps in a very short time.

This machine is also well adapted to move heavy buildings, the power being very great.

Now I would propose a trial of Stump Machines at the next State Fair. I do not see why a liberal premium could not be given for a match of this kind. It would be a very interesting scene, and there are plenty of stumps close to Buffalo to make this important trial, so well calculated to benefit community.

Nothing would improve the country so much as a liberal demand for these machines; not an exciting demand, but a steady and persevering operating one, such as will banish these incumbering drawbacks to the farmer. It is not their unsightly appearance only, but the land now occupied by stumps would, when pulled, add much to the beauty of the country, in addition to the immense profit the occupying of the soil they now stand upon, would reap by their banishment.

I do not see why a trial of these machines would not be more important to the State Society and interesting to the public, than any other part of the exhibition.

My impression is, that stump pulling is a more important business than is generally imagined, and has been overlooked by the managing officers of the State Society. To plow round a stump year after year is not only vexatious, but very unprofitable. This I know from experience. Therefore I would propose to the Society to offer a liberal premium for the best stump machine, say $50 to $100, electing proper judges to decide. It would draw a crowd from a distance to witness a dozen of these machines in operation, earnestly striving for a laudable prize, and they could learn from occular demonstration how easily these pests can be rooted out; almost as quickly as plowing once round them. Wm. H. Sotham. *Owego, N. Y.*

◆

Prolapsus Uteri in Cows.

The case of the cow mentioned by W. F. of New-Hampshire, appears to be that of *prolapsus uteri.* We do not know a preventive, but Dr. Dadd recommends washing the protruded part with a small quantity of powdered bayberry, to remove any extraneous substance; it is then to be pushed in with one hand by successive portions while it is retained by the other; and after being replaced, if it does not contract sufficiently to maintain its place, a brush must be rubbed around the belly and back to excite contraction. A pad wet in alum water must then be applied to the part externally, and kept there by a bandage if necessary as long as it appears to be required. Before the process is commenced, the cow should be made to rise, if lying down, and the protruded part held by a cloth placed under it, and drawn up by two persons holding the ends.

Valuable experience of any of our correspondents on this subject would be gladly received.

◆

Cure for Mange in Swine.

Messrs. Tucker & Son—In one of the late numbers of the Country Gentleman inquiry was made for something that would cure the mange in pigs, and as one my neighbors has recently cured a very bad case, I have concluded to send you his method.

He first thoroughly washed his pig with soap-suds, with the view of getting him as free from dirt as possible, and then once every day wet him with a solution of corrosive sublimate, made by dissolving sixteen grains of corrosive sublimate in a pint of rain water. The pig was as bad as need be—mangy from snout to tail—and the application of this wash to the affected parts resulted in a cure in about three weeks.

It may be well to note that care must be taken in the use of this solution, for it is a very active poison. D. W. B. *St. Catharines, C. W.*

◆

Bee House.

In reply to J. C. T., of Ann Arbor, Mich., I would say the objection to his proposed plan of a bee house will be, first, that after he has built an expensive house, it will be almost impossible to resist the temptation to make the most of it, and crowd his stocks too close. Second, the opening on each side of only eight inches, (which I suppose is for the passage of the bees,) with the hives setting back nearly two feet, or even but two inches, is a bad arrangement. The bees on their return will be confused for want of objects to distinguish their own hive—will enter the wrong one, and be destroyed. If there is any increase, the young queens will be subject to the same fatal mistake; and the consequence will be, loss of the colony. This arrangement would multiply the chances of loss tenfold over one where the hive is conspicuous, and a proper distance from others.

The objection to a basement is that it raises the bees too far from the ground—the wind affects them more. The nearer the earth the better. I cannot imagine any paying advantages with such a house. I am satisfied that bees will do much better when each hive stands four feet from its neighbor, and a separate stand, cover, &c., for each.

The size af his hive is much too small, and the shape a bad one for a cold climate. A hive for any section, should never contain less than a cubic foot. There must be brood combs sufficient to keep up the numbers of the colony, and to store a supply for winter. A hive for this section (latitude near 43 degrees) is not safe with much less than 2,000 inches, inside measure.

As for the merits of the platform hive, I never discovered enough to warrant a return of the expense of construction—I might add, or to pay for *working* it, if furnished gratis! I have had the "right" to use said hive several years. I never did expect, and probably never shall make a trial of it. If J. C. T. expects to increase his stocks by the plan recommended to me as Davis' I would suggest the possibility of a disappointment. Also of the feed recommended.

Now as Mr. T. relative to bee-keeping says, he "knows but very little about it experimentally," I would advise him to listen with extreme caution to all interested twaddle coming from patent hive venders! If he would reject all of them, and take the simple old box hive, his chances of success would be much greater. I speak from experience. I have yet to find the man whose uniform success has surpassed my own. For more than a quarter of a century I have adhered to simplicity, and am not indebted to a single patent, when counting my stocks by the hundred. It is available for obtaining the surplus honey in any form that fancy may dictate; it is as pure in quality, as much in quantity, with an expense of fifty cents, as if ten dollars had been used for the purpose. M. Quinby, *Author of "Mysteries of Bee-Keeping Explained."* *St. Johnsville, N. Y.*

◆

Hand Cultivator.—I wish information in regard to the hand cultivator. Does it answer the purpose it was intended for, namely, for the garden? Where can it be found, price, &c.? W. K. *Huntley Grove, Ill.*

☞ We learn that SAML. THORNE, Esq., of Thornedale, Dutchess Co., has just purchased the entire Short-horn herds of Col. LEWIS G. MORRIS and the late Mr. BECAR. It will be remembered that Col. MORRIS at his sale in last June, disposed of all his Devons, and only reserved the choicest of his Short-horns. These, together with the magnificent herd left by Mr. BECAR, numbering in all *fifty-one head*, form an acquisition, unprecedented as we believe in any previous transactions of the kind in this country, or perhaps abroad. While we are sincerely sorry to lose Col. M. from a pursuit which he entered upon with a liberality and enterprise then unequalled, and since rarely surpassed, and which he has ever conducted with a degree of energy and judgment only paralleled by his success—at the same time we can but congratulate ourselves on the hands into which the fruits of his skill and taste have fallen. And this, not only because Mr. THORNE has already fully manifested how well he is qualified to undertake the additional responsibilities to which he now succeeds, but also because in consolidating with his own the only collections which were before its immediate rivals, he has together obtained one, in which are centered more of the best strains of blood in greater beauty and profusion, than any other, with perhaps but one or two exceptions, in the world. This is a matter in which we may justly feel some State pride, and which we are sure is far better for the future interests of the stock, than if it had been scattered at a general auction from one end of the country to the other.

SHORT-HORNS TO CALIFORNIA.—We learn that the Messrs. HAINES of Elizabeth, New-Jersey, sent by the steamer Illinois, which sailed March 5th, one Short-Horn bull, 2 years old, one bull calf, 6 months old, and two yearling Short-Horn heifers, to California. They were purchased by GEO. H. HOWARD, Esq., of San Francisco. This is said to be the first shipment of blooded cattle to California. The two-year-old bull was owned jointly with JOSEPH MCGRAW, Jr., of Dryden, Tompkins Co., N. Y. They take the Panama route, and are from three to four weeks on the trip.

PLASTER, MANURE, &C.—(*S. P., Greenup Co., Ky.*) Plaster or gypsum often affords some benefit to corn, and is usually applied by throwing a small handful (a spoonful or two) on the hill while the corn is small. On such soils as are decidedly benefitted, we would recommend another dressing of half a bushel to a bushel an acre, broadcast. We cannot say what amount of benefit would be derived from the plaster, as trial can only determine it. We would not recommend its application to wheat this spring—it will be more likely to make the grass and weeds grow than the wheat itself. Rock-plaster, which requires to be ground in a plaster-mill before it can be applied to land, may be distinguished by its *softness*, from limestone, and by not effervescing with acids. It may be cut freely with a knife, and by using a knife first on limestone and then on plaster, the difference is very obvious. It is proper to remark that there are sometimes varieties of clay slate, soft like plaster, but one who has examined both, will not confound them. If our correspondent will heat a portion of the pulverized rock, which he wishes to examine, for some hours nearly to redness, and then mix it to a paste with water, it will harden, if plaster, in a few minutes, or *set*—this he may regard as a sure indication of its genuineness, and it will distinguish it from all other substances. This is the way in which the plaster of Paris used in moulding into any desired forms—and which is the same thing as gypsum, except in being whiter in color than most American gypsum.

If our correspondent has plenty of yard manure, he need not look further for guano, or more costly and less certain applications.

Vetch seed may be obtained of J. M. THORBURN & Co., Seedsmen, New-York.

New Chinese Northern Sugar Cane Seed.

JUST RECEIVED one hundred pounds (fresh and genuine) which will be sold in lots to suit purchasers. All inquiries or orders by mail promptly answered.

W. THORBURN, Seedsman,
March 26—w2tm1t 492 Broadway, Albany, N. Y.

PLATTSBURGH NURSERIES.

THE subscriber offers for sale a superior stock of HARDY FRUIT TREES, &c., suitable for orchards and gardens, propagated with great care, consisting of APPLES and PEARS, (both Standard and Dwarf,) Plums, Cherries, Grapes, Currants, Raspberries, Gooseberries, Strawberries—also ORNAMENTAL TREES and SHRUBS, ROSES, HEDGE PLANTS, ASPARAGUS and RHUBARB PLANTS. Priced Catalogues will be sent to all applicants.

Also Yellow Locust Seed at 75 cents per pound.

JOHN W. BAILEY, Proprietor.
Plattsburg, N. Y., March 19—w&m1t*

THE CONCORD GRAPE.

THE originator of this new grape offers for sale a fine stock raised from the parent vine. It has fully sustained its reputation as

The Best Grape for Out-door Culture,

having survived the two last severe winters unharmed, when the Isabella, Catawba, and other grapes were killed to the ground.

For SIZE, BEAUTY, QUALITY and BEARING, it is unsurpassed. It is perfectly hardy, and has never been affected by rot or mildew, while it ripens three to four weeks before the Isabella and two weeks before the Diana, in the garden of the proprietor.

"We tested at our late State Fair, several specimens of this new Eastern Grape, and were agreeably disappointed in it. The berries are from a fourth to a third larger than either the Isabella or Catawba; the bunches are larger and heavier: the vine is far hardier than any other of Northern origin; and the fruit ripens from three weeks to a month earlier."—[HORACE GREELY, New-York Tribune, Oct., 1854.

"We have received from E. W. Bull, of Concord, a fine specimen of the Concord Grape. This new seedling is attracting much attention among horticulturists, and deservedly. It is a large and handsomely clustered grape, and the flavor of the specimens we have tasted is superior to that of the Isabella."—[Boston Journal, Sept., 1854.

"I regret the Grapes I received from you did not keep longer. They gave the utmost satisfaction, and every good judge of fruit said they were DECIDEDLY BETTER THAN THE ISABELLA."—[J. D. INGERSOL, Ilion, N. Y., Oct., 1854.

"The most beautiful" of the new hardy grapes "is undoubtedly the Concord."—[J. F. ALLEN, Report Mass. Hort. Soc. 1854.

The testimony in favor of this Grape is certainly very full and from well-known horticulturists. It may be pronounced large, handsome, and excellent.—[Horticulturist, Dec., 1855.

Opinions of the Massachusetts Horticultural Society:

1852, Sept.—"Seedling grape from Mr. Bull, large, handsome and excellent."

1853, Sept.—"Fully equal to specimens last year, and proves to be a remarkably early, handsome, and very superior grape."

Fine strong plants for sale at $1.50 each—$12 per dozen. Two years old, $2 each—$18 per dozen. Extra three years, $3 each. A LIBERAL DISCOUNT to clubs and the trade.

Address E. W. BULL,
March 19—w&mtf Concord, Mass.

STUDENTS frequently Employ their Mornings, Evenings and Vacations in canvassing—WITH GREAT PROFIT TO THEMSELVES—for our Publications. The most liberal terms, with security against the Possibility of Loss.

Address FOWLER & WELLS,
March 19—w3tm1t 308 Broadway, New-York.

HAY PRESSES.

DEDERICK'S CELEBRATED PARALLEL LEVER Portable and Stationary HAY PRESSES, patented May 16th and June 6th, 1854—which (at about the same cost of transportation as a Railroad Horse Power and Thresher,) are now being forwarded to all parts of the country, and are in every case giving the most decided satisfaction; which (with two men and a horse) are warranted to bale from six to nine tons of hay per day, according to the No. or size of the press—and which are sold for from $100 to 175. For circulars, with full explanatory engravings, and numerous first-class references, appply personally or by mail to WILLIAM DEERING & CO.,
Dec. 11—weow&mtf Manufacturers, Albany, N. Y.

New and Rare Strawberries.

TO SPARE—a few hundreds of the following varieties, which are possessed by BUT ONE OTHER nursery in the country, where (if they are sold at all) the prices charged are 25 per cent. higher than those annexed :

	per doz.	per fifty.	per 100.
Prince's Primate	$ 75	$2.00	$3.00
Prince's Imperial Scarlet,	1.50	4.00	6.00
Prince's Scarlet Magnate,	1.75	5.00	8.00

Also the following kinds :

Longworth's Prolific (genuine, from R. G. Pardee, author of Treatise on the Strawberry)—price 50 cts. per doz. —$1.50 for 50—$2.50 per 100.

McAvoy's Superior, Scott's Seedling, and Myatt's Prolific Hautbois, 50 cts. per dozen—$1.50 for 50—$2 per 100.

Applications accompanied by the CASH will be attended to in the order of their reception. H. A. MISH,
Harrisburg, Pa.

When desired, plants will be sent by mail, enclosed in oiled silk, if two postage stamps are sent for each dozen ordered. April 1—m1t*

HIGHLAND NURSERIES,

Newburg, N. Y.

Formerly A. J. DOWNING & Co.

THE subscribers in calling the attention of the public to their stock for spring planting, beg leave to say that at no former time have they been so well prepared to meet the constantly increasing demand for trees, &c., &c., as at present.

In the Department of Fruits, their stock of trees of Apples, Pears, Cherries, Peaches, Apricots, Nectarines, &c. ; also, strong plants of Grape-vines, Gooseberries, Currants, Raspberries, Strawberries, &c., &c., as well as all the smaller and miscellaneous fruits, are of the best quality as regards size and thriftiness, and include all the best varieties in cultivation.

THE ORNAMENTAL DEPARTMENT is also full and complete in all the leading varieties of Evergreen and Deciduous Trees and Shrubs, many of which are of extra size, suitable for tree planting, or giving immediate effect around newly erected residences.

A fine collection of Roses ; also Hedge Plants, Asparagus and Rhubarb Roots, &c., &c., and all articles that are usually to be had in the trade. For further particulars see Catalogue, a copy of which will be mailed to applicants on inclosing a postage stamp to prepay the same.

Orders by mail promptly attended to, and packed in the best manner, and forwarded as directed, but after delivery to forwarders at the risk of purchasers. A. SAUL & CO.
Newburg, March 1—w1tinM2tAm1t.

HOW to Do Good and "Get Paid for it."—Take an Agency for our publications. The terms are such there can be no POSSIBILITY OF LOSS. EVERY FAMILY will be glad to obtain some of them. For particulars address
FOWLER & WELLS,
March 19—w3tm1t 308 Broadway, New-York.

PEAR TREES.

250,000 PEAR TREES, Standards and Dwarfs ; the finest lot ever raised. Those who have been in the habit of importing, would do well to look at these. Among the varieties are the Rosticzer, Beurre Langelier, Beurre d'Anjou, Beurre Clairgeau, and other new ones. These are in a fresh and thrifty condition, and much more valuable than imported trees.

GEO. W. WILSON,
April 1—m1t.* Malden, Mass.

It Pays Well !—Farmers look Here ! !

AN ACRE of good soil will yield from five to six hundred brooms. There is a great demand for them. The seed more than pays for raising the corn. The brooms can be made when there is no out-door work! We give plainly printed instructions, by which we GUARANTEE that any one can make from 30 to 40 brooms per day. The necessary fixtures can be made anywhere, at a very TRIFLING EXPENSE. Success insured or the money returned. Thirty-five cents in postage stamps or in silver, wrapped in a slip of paper in an envelope well pasted, will go safely at single postage, and will procure the above valuable information—worth $20 to any farmer.

Address FISHER & CO.,
Selinsgrove, Snyder Co., Pa.

N. B. Best mode to raise the corn also given. We wish it distinctly understood that this is not a catch-penny advertisement. We would not so compromise our sense of honesty and justice as to swindle any person out of a cent. We hold ourselves responsible for what we say.
April 1—m1t

KINDERHOOK NURSERY.

THE Proprietor of this well-known Nursery would inform his friends that he has on hand a large stock of very fine FRUIT, ORNAMENTAL and EVERGREEN TREES, ROSES, &c., which will be sold at very low prices.

A Catalogue will be sent to any one applying by mail or otherwise.

Also, a large stock of OSIER WILLOWS, of the different varieties. Cuttings furnished at very low prices.

Address JOHN H. CORNING,
March 19—w6tm2t Valatie, Columbia Co., N. Y.

Chufas or Earth Almonds.

I CAN still supply tubers of the Earth Almond for planting, at 30 cents per hundred—sent by mail post paid, on the reception of price. H. B. LUM.
Sandusky, Ohio, March 26—w4tm1t.*

Articles at Lowest Rates.

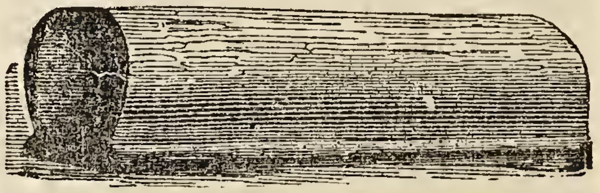
FRUIT AND ORNAMENTAL TREES, including Evergreens, the finest collection in the Union—700 lbs. Chinese Sugar Cane, and also parcels of 8000 seeds, post-paid, for $1.25. Chinese Imperial Rice-white Potato, the only ones for sale of American growth, $3 per dozen, $5 for 20, and $20 per 100, Imported tubers, uncertain varieties, $1 per dozen—$7 per 100. Osier Willows, eight finest kinds, $2 to $5 per 1000. Lawton Blackberry, $18 per 100. Grapes, Gooseberries, Raspberries, Currrants and Strawberries, at lowest rates. Linnæus and Victoria Rhubarb, $9 per 100. 20,000 Arbor Vitæ for hedges, and up to 8 feet high.

All the best species of Evergreens, of small sizes for Nurseries—all the new varieties of Native Grapes—Tree and Shrub Seeds—Vegetable and Flower Seeds—Evergreen Tree Seeds—Earth Almonds—Yellow and Honey Locust and Osage Orange—Tobacco, Madder and Teazel Seeds.

Priced Catalogues of every department sent post-paid to applicants who enclose stamps.

WM. R. PRINCE & CO.,
March 26—w4tm1t* Flushing, N. Y.

CLERGYMEN, Teachers and others, may add to their present incomes, and do great good at the same time, by taking an Agency for our new and useful publications. For particulars address FOWLER & WELLS,
March 19—w3tm1t 308 Broadway, New-York.



Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Willson's Nursery.

HORSE SHOE TILE 14 INCHES LONG.

PRICES—4½ inches calibre, $18 per 1000 pieces—3½ inch. $15 per 1000—2½ inches, $12 per 1000.

SOLE TILE 14 INCHES LONG.

4 inches calibre, $40 per 1000—3 inches, $18 per 1000—2 inches, $12 per 1000.

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also large Tile for small streams and drains about dwellings, &c., at $4 $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices ; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchants', 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that Tile from his establishment obtained the first prizes at the Albany county and N. Y. State Fairs. Practical drainers furnised if required.

Orders from all parts will be thankfully received and promptly attended to. Address JOHN APPLETON.
195 Washington-st., Albany, N. Y.
March 26—wcow8tm3m.

SURE Pay and no Risk.—Pleasant and Profitable EMPLOYMENT may be had by enterprising persons by addressing FOWLER & WELLS,
March 26—w3tm1t 308 Broadway, New-York.

New-York State Ag. Society.

Premiums on Farms—1857.

Grain Farms, ...	$50 and $30.
Dairy and Grazing Farms,..........	$50 and $30.

☞ Competitors are desired to give notice to the Secretary before 1st July, so that the farms can be visited by a committee appointed for that purpose.

FIELD CROPS.—Competitors should obtain the regulations of the Society, so as to have their statements properly prepared. H. Greely's Premium on one acre of carrots is continued. Regulations will be furnished on application to the Secretary, and also a list of premiums for 1857. Agricultural Rooms, Albany, March 2, 1857.

March 5—w3tm1t. B. P. JOHNSON, Sec'y

SUPERB VERBENAS.

DEXTER SNOW, VERBENA FLORIST, Chicopee, Mass., will take pleasure in offering to the public the ensuing April, the largest and most superb collection of this splendid flower ever offered in America, numbering between 300 and 400 named varieties, and including ALL THE REAL GEMS in cultivation; among which may be found Brilliant de Vaise and Lord Raglan, the two best Verbenas yet out; the former a rich crimson scarlet with light eye—the latter a bright cherry scarlet, with large lemon eye, splendid color; both have vigorous foliage with habit much like the far-famed Defiance—Imperatrice Elizabeth, a beautiful Vaise variety, with elegant lanceolate foliage, quite distinct from any other Verbena—Alice, clearest white, with bright violet eye, a perfect gem—Arsine Bougard, peach lilac, purple eye, very showy—Carolina, Francis Rosseau, rose edged with white—Cærulean Orb, fine blue purple—Hiawatha, very dark—Kurtz Defiance, the best light colored variety—King of Scarlets, very dazzling—Morning Star, Prince of Wales, Empress of France, Iris, Samoset, a fine, pure white—Beauty of Bay Ridge, Rachel, &c.

Also the following new seedlings: Metropolitan, a rich carmine purple, pip and truss large, foliage vigorous, habit fine; Helen, lavender, with rose crimson center, large and fine—Gen. Walker, a fine reddish crimson; also Mrs. Thorburn, a rich purplish blue, with distinct light eye, habit superb in every respect—this is believed to be the best blue yet out, and gave great satisfaction wherever sent; King of Purples, very large and EXTRA FINE; Miss Heusler, a superb white—stands the sun admirably; the three last named are seedlings sent out by the subscriber last season, and have proved themselves worthy of extensive cultivation. In the collection may be found a large stock of FRAGRANT and pure white varieties.

For the accommodation of those not acquainted with the different varieties, the subscriber has selected a large number of choice ones, and arranged them in packages of 12, 25 and 50 plants each; Package No. 1 will embrace 13 first class varieties, including two novelties as extra first-class, and two fragrant varieties, for $1.75. Package No. 2, twenty-five first-class varieties, including four novelties and the fragrant varieties for $3. Package No. 3, fifty varieties, including six novelties and the fragrant varieties for $5. In Packages Nos. 4, 5 and 6, (each containing 25 varieties for $3,) some one of the three leading colors predominate; in No. 4 scarlet will be the leading color—this package will be found admirable for lawns, as the scarlet colors will contrast finely with the green grass. In package No. 5 purple will be the most prominent color—in No. 6 maroon; yet in no case are these colors used to such an extent as to give the bed or mound the appearance of too much sameness, other colors being added sufficient to produce a pleasing effect. The above arrangement will be found very convenient and it is believed quite satisfactory to the purchaser, as the packages include the best varieties in cultivation, arranged with particular regard to the blending of colors. Those ordering plants have only to enclose the money and number of package desired, without being obliged to write off a list of names; for description of varieties included in the above packages see Descriptive Catalogue now ready, and will be forwarded to all making application AND ENCLOSING STAMP.

Purchasers will please bear in mind that the subscriber devotes his entire time and attention to the EXCLUSIVE CULTURE and IMPROVEMENT of the Verbena. No other plant whatever, is sold from his establishment—this enables him to carry this particular branch of floriculture to greater perfection than would be the case were he to cultivate many species of plants. All orders enclosing CASH promptly and faithfully attended to.

Address DEXTER SNOW,
March 19—w1tm1t* Chicopee, Hampden Co., Mass.

A FAIR Chance.—Clerks in Country Stores, Foremen in Manufacturing Establishments, Postmasters, Hotel-keepers, Steamboat Captains, Railway Conductors, Travelers—both men and women—School Teachers, Students, Farmers, Mechanics, Lawyers, Doctors, Clergymen: ALL are glad to have our books. AGENTS for every neighborhood supplied on the most liberal terms, and SECURED AGAINST THE POSSIBILITY OF LOSS. For full particulars address FOWLER & WELLS,
March 19—w3tm1t 308 Broadway, New-York.

Please to Read This.

IF YOU WANT EMPLOYMENT, send at once for Mr. SEARS' CIRCULARS TO BOOK AGENTS. Our publications are considered among the most salcable. Address (post-paid) ROBERT SEARS, Publisher,
March 19—w6tm6t No. 181 William-st., New-York.

The Third Annual Sheep-Shearing

AND EXHIBITION OF STOCK,

WILL be held at the Elgin Spring House, near Vergennes, Vt., on the 10th and 11th of June. There will also be an auction sale of choice stock. The trotting course will be in good order, and premiums will be given on trotting horses and other stock. All are invited to exhibit their stock for premiums and sale.

SOLOMON ALLEN,
March 26—w1tm2t Vergennes, Vt.

ALBANY SEED STORE.

Established in 1831.

THE subscriber again offers at wholesale and retail, his annual assortment of genuine GARDEN, FIELD and FLOWER SEEDS, growth of 1856, consisting in part of the following desirable articles:

The NEW NORTHERN CHINESE SUGAR CANE, in packages at 25 cents—by mail 34 cents—also a treatise on the Chinese Sugar Cane: its history, mode of culture, manufacture of the sugar, &c., &c. Price 25 cents—by mail 31 cents.

KING PHILIP or Improved Brown Corn.

New CHINESE POTATO—(Dioscorea Batatas) native roots, the lot offered by the subscriber having been raised in the County of Albany. These are fine HEALTHY roots, and offered at $3 per dozen.

CHUFAS or Earth Almonds, 25 cts. per dozen.

JAPAN and OREGON PEAS—CHRISTINA MUSK MELON (true), 50 cts. per ounce—NEW ORANGE WATERMELON, 25 cts. per package, as also all the most desirable varieties of Water and Muskmelons.

Sweet German Turnip, 12½ cts. per ounce.

Tobacco Seed of varieties—Early Cabbages, Cauliflowers, Brocolis, Tomatoes, Celery, Cucumbers, Egg Plant, Lettuces, Turnips, Peppers, Radishes, and Herb Seeds and Bird Seeds of all sorts.

Garden and Field Peas of all sorts—GARDEN BEANS of all sorts.

SWEET OR SUGAR CORN for the Garden—of sorts, viz: Darling's Extra Early, Early Sweet, Early California, Gigantic Constantinople, (very large and fine,) Mammoth Sugar or Large Late, Stowell's Evergreen and Old Colony.

White and Yellow INDIAN CORN of the finest sorts for the Field.

MILLET SEED, Shaker Long-brush Broom Corn, Lucerne or French Clover, White Dutch Clover, Red Clover and Timothy, Red-Top or Herd's Grass, Orchard Grass and Mixed Grass Seeds for Lawns, English Rye Grass, Spring Vetches or Tares, Sun Flowers.

Best Improved Ruta Bagas and other Turnips—Long Orange, Large White and other Carrots—Large Red and Yellow Globe Mangel Wurtzel—White French and Yellow German Sugar Beet—Honey Locust, Buckthorn and Osage Orange for live fences—Yellow Locust for timber and Locust posts, with a large assortment of choice Flower Seeds, of which a package of 20 choice named varieties will be sent by mail for $1, AND POSTAGE PAID. Spring planting bulbs, consisting of Amaryllis, (Jacobean Lilies,) Lutea and Formosissima.

Gladiolus Floribundus, Gandavensis, and Psittacinnus Mexican Tiger Flower, Red and Yellow—Tuberoses, and Madeira Vines. Double Dahlias of the choicest named varieties at $3 per dozen. The best books on Poultry, Kitchen Gardening, Cultivation of Fruit Trees and Flowers.

Orders by mail (be they ever so small) promptly attended to, and Catalogues of my whole collection forwarded by mail, free of charge, to applicants.

WILLIAM THORBURN, Seedsman, &c.,
492 Broadway, Albany, N. Y.

☞ Small packages of Seeds carefully enveloped and safely forwarded by mail. March 19—w10tm2t

"THINK OF LIVING."

Our Illustrated Family Journals.

LIFE ILLUSTRATED—a first-class Family Newspaper, designed to encourage a spirit of Hope, Manliness, Self-Reliance, and Activity among the people; to illustrate Life in all its phases. A paper which ought to be read by every family in the land. Weekly—$2 a year, or $1 for half a year, by FOWLER & WELLS, No. 308 Broadway, New-York.

THE AMERICAN PHRENOLOGICAL JOURNAL is devoted to the science of human nature. It aims to teach man his powers, duties and relations; how to make the most of himself, and thus secure the highest mental and physical well-being. Monthly, in handsome Quarto form, beautifully illustrated, at $1 a year.

THE WATER-CURE JOURNAL is devoted to Physiology, Hydropathy, and the Laws of Life and Health—with Engravings illustrating the Human System—a guide to Health and Longevity, $1 a year.

☞ For Three Dollars, in advance, a copy of LIFE ILLUSTRATED, the PHRENOLOGICAL JOURNAL, and the WATER-CURE JOURNAL, will be sent a year to one address. Now is the time to subscribe. Sample numbers gratis.
March 5—w4tm2t

SYRACUSE NURSERIES,

Thorp, Smith & Hanchett, Proprietors.

THE present stock of our establishment being very large, we are prepared to meet the demands and expectations of applicants with our usual fullness and success. We offer, among other matters, the following

PARTICULAR INDUCEMENTS

APPLE TREES—Eight to ten feet high, mostly fine winter varieties, many of them having borne fruit. Price (assorted by us and the full number taken,) 50 for $7; 100 for $12.50. A rare chance for a cheap and valuable orchard. These trees are offered at this low rate, as they stand upon ground that must be cleared.

PEAR, CHERRY AND PLUM TREES—A limited number, of bearing age. Price $1 to $2.

PEAR TREES, STANDARD AND DWARF—Correspondents write thus of parcels from the same lot:—"The Pears are extra-fine and attract a great deal of attention." Another: "They are the finest I have ever received," Another: "I must say they are the finest lot of trees I ever saw." Another: "I cannot grow such pears." Another. "They were the best lot of Standard Pears for the price that I ever purchased this side the Atlantic."—Selected, Dwarf. $30—Standard, $35 per 100.

DWARF CHERRY TREES—One year old, exceedingly fine mostly Dukes and Morellos; $2.50 per doz., or $16 per 100.

DWARF APPLES—One year old; $2 per doz. or $12.50 per 100.

GRAPES—Catawba and Isabella, two years old, $12 per 100. Clinton, 1 year old, $10 per 100.

CURRANTS—Red and White Dutch, $1; Red and White Grape, Cherry and Fertile de Palluau, $2; Victoria and Black Naples, $1.50 per doz.

RASPBERRIES—A very large stock of Antwerp, North River Red, Fastolff, Knevits' Giant, and Large Fruited Monthly, at $3 per 100, assorted; Cushing and Wilder, at $2 per doz.

ASPARAGUS—One year old plants, remarkably strong; $1 per 100 or $4 per thousand.

OSAGE ORANGE—One year old, fine; $3 per 1000; stock large.

ORNAMENTAL TREES—Six to ten feet high: Silver Abele, $3 per doz.; Mountain Ash, American and European, Horse Chestnut, Black Walnut and Silver Maple, each $4 per doz.; American Elm, $6 per doz.; Tulip Tree (3 feet) $3 per doz.

EVERGREENS—Arbor Vitæ, of luxuriant growth, 2 feet, $1.50 per dozen; American Balsam Fir, 2 feet, $2.50 per doz.; Black Spruce, 2 feet, $2.50 per doz.; Scotch Pine, 1 to 2 feet, $2 per doz.; Hemlock, 1 to 2 feet, $1.50 per doz.; Norway Spruce, 1 to 1½ feet, $1.50 per doz., $10 per 100.

For full descriptions and prices of our general stock, see

OUR CATALOGUES:

No. 2. Description of Fruits; No. 3, of Ornamental Trees, Shrubs, Roses, &c.; No. 4, of Dahlias, Green-House and Bedding Plants; No. 5, a Wholesale Catalogue. Also, a Supplemental Catalogue of the Ornamental department, and a Circular on the Augusta Rose, forwarded on the receipt of the postage, viz: a one cent stamp for each.
Syracuse, March 5—w6tm1t

SPLENDID NEW PLANTS.

A PRICED CATALOGUE of the largest collection of European novelties in the country, including many of remarkable excellence, will be sent to applicants. Also a full descriptive general Catalogue of FRUIT and ORNAMENTAL TREES, GREEN-HOUSE PLANTS, &c., will be sent upon the receipt of a post-stamp.

Address W. C. STRONG,
Feb. 26—w6tm2t Nonantum Hill, Brighton, Mass.

LEGHORN FOWLS

FOR SALE.—A few pairs of choice LEGHORN FOWLS—price $3 per pair, delivered at Rail Road—address JOHN A. CASTERLINE,
March 12—w&m1t* Dover, N. J.

Fruit Trees! Fruit Trees!

THOMAS & HERENDEEN, of Macedon, Wayne Co., N. Y., offer for sale a choice collection of Fruit Trees, suitable for orchards and gardens, propagated with great care from BEARING TREES, and consisting of

Apples, Peaches, Pears, Cherries, Plums,

And the smaller fruits generally, as GRAPES, RASPBERRIES, CURRANTS, GOOSEBERRIES, STRAWBERRIES, &c., of the most valuable varieties grown in the Northern States; and a fine supply of Ornamental Trees, Shrubs, and showy Perennial Plants.

☞ Careful selections for orchards and gardens, to insure an early, medium and late supply of delicious fruit, will if desired be made by the proprietors, without additional charge purchasers merely giving the number of trees.
Feb. 26—w6tm2t

King Philip or Brown Corn.

I WILL pack and deliver to the R. R. the above variety of seed corn for $1.25 per bushel. Address
JAS. W. GRAY,
March 1—m3t Ball's Pond, Conn.

"Chinese Sugar-Cane Seed."

WE HAVE at last succeeded in getting a supply of the pure "SUGAR-CANE SEED," which is warranted, and we will supply sufficient to plant one-fourth of an acre for $1. All orders, if by mail, must be accompanied by the money and post-paid. The following is a statement of the product of this seed:

Yield of fodder per acre, 1100 to 1300 lbs.
" seed " 25 bushels, 36 lbs. to the bush.
First trial of mill, 70 average canes gave 20 qts. of juice.

Those wishing this Seed will please send their orders soon, to be sure of getting it, as the supply is limited.
RICHARD H. PEASE.
Feb. 19—w10tm2t Nos. 369 & 371 Broadway, Albany.

ISABELLA AND CATAWBA GRAPE VINES,

OF PROPER AGE FOR FORMING VINEYARDS,

CULTIVATED from, and containing all the good qualities which the most improved cultivation for over sixteen years, has conferred on the Croton Point Vineyards, are offered to the public. Those who may purchase will receive such instructions for four years, as will enable them to cultivate the Grape with entire success, provided their locality is not too far north.

All communications addressed to R. T. UNDERHILL, M. D., New-York; or Croton Point, Westchester County, N. Y., will receive attention.

The additional experience of the four past seasons gives him full assurance that, by improved cultivation, pruning &c., a crop of good fruit can be obtained every year, in most of the Northern, and all of the Middle, Western and Southern States.

N. B. To those who take sufficient to plant six acres, as he directs, he will, when they commence bearing, furnish the owner with one of his Vine-dressers, whom he has instructed in his mode of cultivation, and he will do all the labor of the Vineyard, and insure the most perfect success. The only charge, a reasonable compensation for the labor.

Also, APPLE-QUINCE TREES, (which are sometimes called the Orange Quince,) for sale as above.
Feb. 12—w&m R. T. UNDERHILL, M. D.

"EVERY FARMER SHOULD OWN THEM."

ALLEN

ON THE DISEASES OF DOMESTIC ANIMALS.

THIRTY-FIRST THOUSAND.

PRICE 75 CENTS, and sent free of Postage, on receipt of price.

"Its greatest worth is as a 'complete Farrier.'"—*Farmer and Mechanic.*

"It ought to be in every family where Dairying is carried on."—*Worcester Transcript.*

"Worthy of a place in every Farmer's Library."—*Jeffersonian.*

"Just what is needed by every good farmer."—*L. I. Farmer.*

"A very excellent book on Domestic Animals."—*Maine Farmer.*

"A most admirable practical work for every-day use."—*Index.*

"The work ought to be in the hands of every Planter."—*N. O. Delta*

"When such men as R. L. Allen take up the pen, something flows from it which does his fellow-men good."—*Iowa Advocate.*

"Here is a Book for the Million, written by a Gentleman of Science and Experience."—*Newburyport Watchman.*

ALLEN'S (R. L.) AMERICAN FARM BOOK.

The American Farm Book: or, a Compound of American Agriculture, being a Practical Treatise on Soils, Manures, Draining, Irrigation, Grasses, Grain, Roots, Fruits, Cotton, Tobacco, Sugar Cane, Rice, and every Staple Product of the United States; with the best methods of planting, cultivating, and preparation for market. Illustrated by more than one hundred engravings. By R. L. Allen.

One of the most complete Books upon American Agriculture that has yet been published. Price ONE DOLLAR. Sent free of Postage. Address

C. M. SAXTON & CO.,
March 5—w&m1t 140 Fulton-st., New-York.

OSIER WILLOWS.

THE subscribers are General Agents for GEO. J. COLBY, patentee of the machine for peeling willows, and will sell the best kind of Osiers on the most liberal terms, and give a Circular containing full directions for cultivating, market, &c., FREE to all. Address CARMI OSGOOD, Westford, Vt., or REUBEN OSGOOD, Fremont, Lake Co., Ill. Feb. 5—w8tm2t*

Genuine Northern Muscadine Grape.

THE subscribers have twenty-five years experience in proving the most noted varieties of native Grapes, being over forty different kinds, embracing the late new varieties.

Among these the Genuine Northern Muscadine Grape has proved for fifteen years past in point of profit, either as a wine or table grape, as ten to one of any other kind.

We often grow in our Society at Lebanon, hundreds of bushels of this grape in a season, six quarts of which will produce (as we make it) one gallon of pure wine. The fruit is worth from 18 to 25 cents per pound on the vine.

We now offer a few thousand large and vigorous roots of this Genuine Northern Muscadine Grape for spring planting. Our experience proves this to be one of the most profitable grapes for the Northern and Western States.

Price of Roots—One to Five Dollars. Terms—Cash on delivery of roots. Liberal allowance made to those who purchase in large quantities for vineyards. Five per cent. discount when cash accompanies the order. The public are cautioned against the gross imposition of unprincipled persons vending grape roots under the above name which are worthless, which has been much practiced in the Western States.

We warrant none genuine but such as are purchased of us or our legally appointed agents, who can show proper authority.

This Grape is a new variety which we produced from the seed of the native white grape and is of course as hardy as our currant bushes or forest trees, and uniformly FOUR WEEKS earlier than the Isabella or Catawba.

The money must accompany all orders for this Grape, with plain directions how they shall be sent—whether by Express or otherwise. By clubbing, ten or twenty roots can be sent in one package, to any part of the United States as cheap as one.

JESSE LEWIS,
P. STEWART,
March 12—w&m1t New-Lebanon, Col. Co., N. Y.

SUGAR-CANE SEED!

EMERY BROTHERS have, at much expense and trouble, obtained a supply of GENUINE SEED of the **Chinese Sugar Cane**, or "SORGHUM SACCHARATUM," successfully grown, fully matured and sure to vegetate, from Mr. R. PETERS, of Georgia, which they will supply in strong linen packages, with full directions for its culture, for ONE DOLLAR, each containing sufficient quantity for one-fifth of an acre. All orders should be accompanied with TWELVE CENTS, or stamps, if to be sent by mail. Pamphlets, containing a compilation of reliable information, experiments and success of the Plant, since its introduction in this country, furnished gratis (postpaid) upon receipt of a three-cent postage stamp.

EMERY BROTHERS,
Proprietors Albany Agricultural Works,
Jan. 28—w4tm2t 52 State-street, Albany.

SEEDLING POTATOES.

THE subscriber offers the following valuable seedling potatoes for sale. They are the result of the culture of about 5,400 sorts, originated from the seed boll in 1849, '50, '52 and '53, and comprehending many distinct families. During 1853-4, a great number of these varieties were sent out by sale and gift, in connection with the Rough Purple White; such sorts only being sent as up to that time had seemed to promise well. The very dry summers of 1853 and '54 were most unfavorable to many of these young varieties, dwarfing the herbage and deforming the tubers. He has reason to know that similar results, to a large extent, attended their culture in the hands of others to whom he sent them during the same years.

After the culture of these many hundred sorts, under these discouragements, he finds he has a few sorts of superior qualities, such as are sustained by numerous correspondents to whom he sent specimens of them in 1855 and '56. To these few sorts he has given names. They seem now permanently to exhibit such health, yield and shape, as to justify their confident recommendation to the public in the place of the old varieties. The following are his principal valuable sorts:

1. The BLACK DIAMOND, originated from the Western Red in 1852. It is *round, dark purple, a large yielder and hardy.* It ripens with the season.

2. The GARNET CHILI, originated from the Rough Purple Chili in 1853. It is *round, light red, a large yielder, and hardy* beyond all others. It ripens just before the close of the season.

3. The MOUNTAIN JUNE PINK EYE, originated from the Mountain June in 1853. It is *round, white,* with purple streaks, *hardy,* and yielding above all other known sorts. Matures lateish.

These three sorts hold the first rank as medium or lateish ripeners, and have received the highest praise abroad. Besides these I have—

4. The UTICA PINK EYE, very early and moderately hardy. 5. The PALE BLUSH PINK EYE. 6. The OVATE PERUVIAN. These two last are very beautiful, moderately early and moderately hardy. 7. The NEW-HARTFORD. This is lateish. These last four sorts are all white. I have only a few of each, so that they will be given out only in small quantities, and in connection with the first three sorts.

All these seven sorts grow very concentratedly in the hill, and can be dug with rapidity. They are all very white flesh, and not deep-eyed. They all withstand dry weather without dwarfing and drying up. They have all uniformly withstood disease, with the exception of those noted as moderately hardy, though cultivated in soils and seasons in which disease was very prevalent in the old varieties. These varieties will be put in boxes and marked and forwarded to purchasers at FIVE DOLLARS per bushel, *paid in advance,* and at the expense and risk of the purchaser. Fractions of a dollar may be sent in postage stamps.

☞ Those who purchased seedlings of me in 1853 and '54, and failed to secure good varieties, will be supplied with samples of the above sorts GRATUITOUSLY by sending THIRTY-SIX CENTS in postage stamps to defray the expense of boxing and marking.

CHAUNCEY E. GOODRICH,
Utica, N. Y.

REFERENCES.

The following persons, among many others, have successfully cultivated the most of the foregoing roots during one or both of the last two years:

Henry Keeler, South Salem; J. Wesley Jones, Chatham; C. L. Kiersted, Kingston; J. J. Thomas, Union Springs; I. D. Ingersoll, Ilion; S. D. Hungerford, Adams; Harvey Bradley, Whitesborough; Wm. R. Miller, Marcy; James McIntyre, Fonda; all of N. Y. Yardley Taylor, Loudon Co., Va.; S. C. Stebbins, Long Meadow, Ms.; J. H. Sherrill, Waterloo, Iowa. March 12—

North Devon Bulls for Sale.

THE subscribers offer for sale two pure-bred North Devon Bulls from celebrated herds.

"New Britain 1st," was bred by S. & L. Hurlbut—is two years old, was sired by Albert, an imported bull, (see No. 2 English Herd Book,)—his dam can be traced back to an imported cow from the stock of the Earl of Leicester, Norfolk, England.

"New Britain 2d," will be one year old the first of March next, was sired by New-Britain 1st—his dam is from the stock of the original importation of the Messrs. Patterson of Baltimore. Full and reliable pedigrees can be given.

L. S. & L. R. WELLS,
Feb. 5—w1tm2t New-Britain, Ct.

For Sale,

DURHAM YEARLING BULLS AND HEIFERS—also Calves and LEICESTER SHEEP.

RALPH WADE,
Jan. 1, 1857—m6t Cobourg, C. W.

Durham Bulls and Suffolk Pigs.

I HAVE now for sale three Durham Bulls, viz:

"Locofoco,"	35 months old—price		$200
"Man Friday,"	13 do.	do.	350
"Ozark,"	4 do.	do.	250

Their pedigrees are all in the third vol. of the American Herd Book. "Ozark" is by Mr. Thorne's celebrated Bull "2nd Grand Duke," (12,961).

Also seven pair SUFFOLK PIGS, 12 weeks old—price $30 per pair, boxed, &c.

Full description and pedigrees of the above stock will be furnished by THOS. GOULD,
Feb. 5—w4tm2t Aurora, Cayuga Co., N. Y.

Manny's Patent Mower—Mower and Reaper Combined,

FOR THE HARVEST OF 1857.

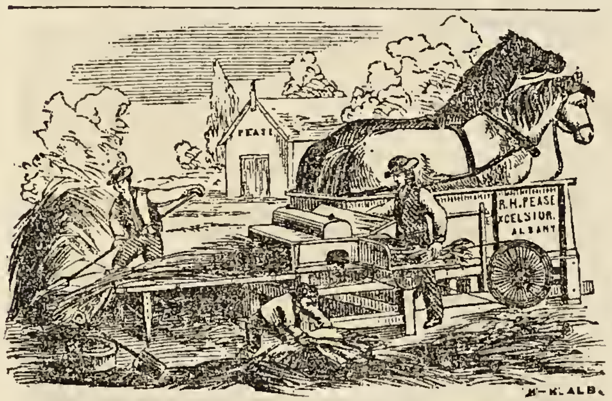
THE subscriber has the exclusive agency for these machines, which are universally acknowledged to be the most superior mowers and reapers ever used. They are light, easily handled, and can be carried conveniently on any farmer's wagon—run on two wheels and have no side draft. We offer the following inducements to farmers to purchase these machines:

To any farmer or person selling one of these machines, we will give a copy of the Country Gentleman or Cultivator, or any other Agricultural paper in the United States, or the amount of the subscription in cash.

Retail Prices for 1857.

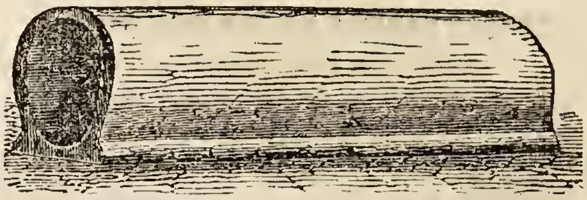
Single Mower, in Albany,	$116.50
Combined Machine,	126.50

Address RICH'D H. PEASE,
Feb. 5—w2tm2t 369 & 371 Broadway, Albany, N. Y.



The "Excelsior" Patent Railway Changeable Horse Powers, Threshers, Separators, Farm Mills, Saw Mills, and other Machines Propelled by the Horse Power,

ARE extensively manufactured by the subscriber, and are warranted equal, if not superior, to any other machines made in this country. They need only to be tried to satisfy Farmers of their utility and economy, and we hope those wishing such machines will give ours a test before purchasing elsewhere. We offer farmers and others the following inducement to purchase them: To every one buying a Horse Power and Threshing Machine, we will present one year's subscription to any Agricultural journal published in the United States they may want. Local Agents wanted to sell these machines where none are already established. Address R. H. PEASE,
Feb. 26—w10tm2t Albany, N. Y.



ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE 14 INCHES LONG—PIECES.

2½ inches	calibre,	$12	per 1000
3½ "	"	15	"
4½ "	"	18	"
5½ "	"	40	"
6½ "	"	60	"
8 "	"	80	"

SOLE TILE 14 INCHES LONG—PIECES.

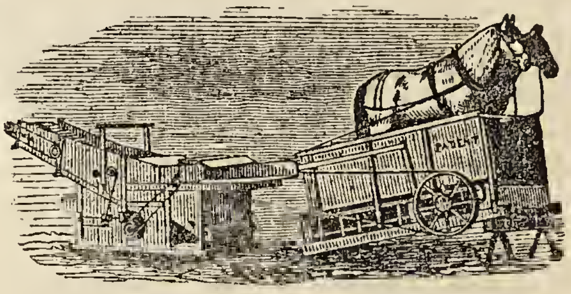
2 inches	calibre,	$12	per 1000
3 "	"	18	"
4 "	"	40	"
5 "	"	60	"
6 "	"	80	"

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y.

RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.



THE SCHENECTADY AG. WORKS,

Manufacture Improved Railway Horse Powers, Threshers and Separators, Threshers and Winnowers Combined, Clover Hullers, and Sawing Machines.

THE undersigned having been over twenty years engaged in building Horse Powers and Threshing Machines, feel confident from past experience and the numerous testimonials we are receiving from all parts of the country, of the superiority of our Machines, that we can give satisfaction to all who may favor us with their orders. Our HORSE POWERS are made substantial, and so geared that it requires the team to travel only about 1¾ miles per hour, thereby making them suitable to work either horses or cattle on them. Our THRESHERS and THRESHERS AND WINNOWERS, are so constructed as to discharge all the grain and dust through the Machine, and not into the feeder's face as is usual with other kinds. The Thresher and Winnower has a revolving wire separator, which does the work more perfect than can be done any other way.

The SEPARATOR (riddle) has a fork or straw-shaker, which shakes the grain out of the straw as it passes from the Thresher.

We warrant these Machines to suit the purchaser upon trial, or they can be returned and the money will be refunded. G. WESTINGHOUSE & CO.,
March 5—woam&m5t Schenectady, N. Y.

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME.--Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS. all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

R. L. ALLEN,
Feb. 26—weow&mtf 189 & 191 Water-st., New-York.

PERUVIAN GUANO.

NO. 1, Government Brand and Weight, for sale in lots to suit purchasers. Price $55 per ton of 2000 lbs.—in lots of 10 tons, $61 per 2240 lbs. A. LONGETT,
Feb. 26—w4tm2t 34 Cliff-st.. (cor. of Fulton,) New-York.

Guano and other Fertilizers.

GENUINE No. 1 Peruvian Guano,
Columbian and Ichaboe Guano,
Super-Phosphate of Lime,
Poudrette, Land Plaster and Charcoal Dust,
Bone Dust of different qualities,
For sale by GEO. W. MAYHER,
No. 197 Water-st., (near Fulton-st.,)
Jan. 28—w8tm3t New-York.

Important to Farmers, Gardeners and Planters!

THE BROOKLYN FERTILIZING Manufacturing Company are now ready to offer their AMMONIATED TAFEU for sale, for the present at the low price of $25,00 per ton. It is a highly efficient fertilizer, prepared from Night Soil, Blood, and Butcher's Offal, received from the city of Brooklyn, under a contract for ten years—therefore consumers can always rely on its strict purity and uniformity, being manufactured under the supervision of a competent Chemist, and it is warranted to contain a very large per centage of Phosphates, Ammonical and Organic Substances, Potash, and other valuable ingredients, as may be seen by the Analysis in our circulars; and is believed to be one of the richest fertilizers ever used. For orders or further information, apply to the office of the company in Brooklyn, E. D.. foot of South 11th street, or at 82 Water street, New York.

N. B. Circulars with full information and analysis will be sent by mail to any one requesting them.

March 1, 1857—w&m3m.

TO FARMERS AND GARDENERS.

THE SUBSCRIBERS OFFER FOR SALE 40,000 barrels of their

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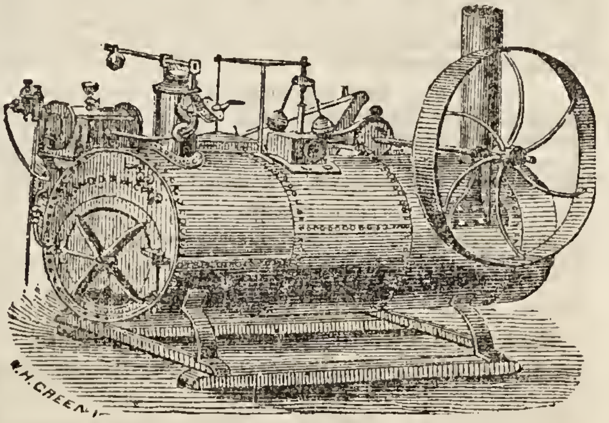

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Agricultural Books,

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Contents of this Number.

THE FARM.

Quantity and Value of the Manure of Cattle, 105
Cement Water Troughs, by J. E. S., 106
Large Product of Potatoes by O. H. Hazard, 106
Advice in Farming, 117
Renovating Old Pastures, by H. C., 117
The Thorn for Hedges, by G. P, R., 108
My Artificial Stone House, by J. E. S., 109
Indian Corn after Buckwheat, by W. C. Hoffman, 109
Value of Ashes for Grain Crops, by F. Fay, 110
Experiment with Guano and Stable Manure, by D.D.C., 110
Proper Application of Manures, &c., by Jas. Childs, 111
Improvement of Meadows, by G. Towbridge, 111
Questions about Underdraining, 113
Feeding and Culture of Carrots, by E. L. Coy, 113
Sinking Stones vs. Blasting, by P., 114
How to Save Liquid Manure, by A Subscriber, 114
Draining with Stone, by L. C., 114
Culture and Uses of the Willow, by J. W. Clark, 115
Compost for Potatoes, 116
One Story Farm House, 117
Ice-House in Cellar, 117
Use of Hen Manure on Corn, by E. Allin, 117
Poland and Imperial Oats, 117
Wanted—An Experimental Farm, 118
Culture of Barley in Jefferson Co., by D. Parker, 119
Liquid Manure, How to Use, 119
Mulching Potatoes, by John Moerschy, 120
Fractions of an Acre for Experiments, 120
Home-Made Fertilizers, 121
Coal Ashes as a Manure, 121
Inquiries and Answers, 122
How to Improve Old Meadows, by A. B. Dickinson, 125
A Word about Potatoes, by A Farmer, 125
Notes for the Month, 126

THE GRAZIER.

Stretches, &c., in Sheep, by J. J. Craig, 112
The Hog Cholera, by J. S. Shipman, 114
Singular disease in Calves, by Isaac Burr, 114
Cost of Keeping Work Horses and Oxen, 116
To Prevent Cows from Kicking, by A. C. Powell, 127
Unprecedented Sale of Short-Horns, 128

THE POULTRY-YARD.

Cure for Roup in Poultry, 108

THE HORTICULTURIST.

Best Time for Pruning, by E. L. R., 109
Mildew on the Gooseberry, by W. Graham, 109
Root Pruning, 117
Mice-Girdled Trees, 120
Best Manure for Roses, 120
Raising the Locust from Seed, 121
Transplanting Evergreens, 121

THE HOUSEWIFE.

Ten Recipes for Housewives, by M. H. K., 112
Cure for Inflammatory Rheumatism, by F. A., 112
Cheap Paint, by J. M. Clark, 117
How to Make Soft Soap, by A. C. W., 127

ILLUSTRATIONS.

One-Story Farm-House, 117

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March 12—weow&m2mos.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES

VOL. V. ALBANY, MAY, 1857. NO. V.

Theory of the Management and Application of Barn-Yard Manure.

Which is best, fresh or fermented manure? Neither is best always, and each is best sometimes.

Perfectly fresh manure is probably not a fertilizer for our cultivated plants. Doubtless it cannot be absorbed and appropriated to any great extent by the higher kinds of vegetation, until it has undergone those changes which are comprehended under the terms fermentation, putrefaction and decay. All evidence points out the *products* of these changes to be the actual food of plants. We are quite warranted in assuming that stable or yard manure must ferment or decay before it can exert much beneficial action on a growing crop. It does not necessarily follow, however, that the manure must be fermented in the usual sense, i. e., rotted, above ground, before it is given to the soil. Manure may often decay in the soil itself, so rapidly as to become immediately useful to crops, though applied in a fresh or nearly fresh state.

It may also remain for a time undecomposed and innutritive to the plant. This will depend chiefly upon the character of the soil,—will be affected also by weather, and by the nature of the manure. In order to enable us to decide what will happen to fresh manure if buried in the soil, we must in the first place know what are the conditions of decomposition. These are, 1st, *moisture*, not wetness nor dryness—2d, *warmth*—3d, access of atmospheric air, or of the oxygen of the air. Furthermore, other things being equal, the decomposition of manure is more rapid as it contains more nitrogenous matter. Horse-dung ferments quicker than cow-dung; it is richer in nitrogen. On the other hand, the more coarse litter that is mixed with dung, the slower will the whole ferment; while the porosity or division of it, which increases its contact with air, must facilitate decomposition. The last mentioned circumstances, it will be seen, are to a degree antagonistic, and compensate each other.

If our premises thus far, are correct, it is obvious that in soils which are warm, porous, and neither too wet nor too dry, manure will decompose readily, so that it may be furrowed under to a certain depth, in the fresh state, and yet produce its maximum effect upon the soil. It is also plain that manure, especially if mixed with much coarse long litter, may be protected more or less from decomposition, when buried in a wet or heavy soil, and may therefore fail to manifest a decided action, or so decided an action as an equivalent of previously fermented manure.

From the above, we are not by any means warranted in assuming that fresh manure is best on all light warm soils, and fermented manure on all clayey or heavy soils. There are substances which exert a specific action on decomposing organic matters; some facilitate, others hinder their decomposition. Lime is generally supposed to belong to the former class, and gypsum is known to be one of the latter kind of bodies. It is not improbable that oxyd of iron and alumina when existing as such in the soil, may check decomposition; probably too, the humus of the soil, when of the acid sort, as when formed in presence of much water, may hinder decomposition. But of the precise effect of the various ingredients of the soil we possess no minute knowledge. These suggestions are made merely to show that probably there are many causes that may modify the process of decomposition, and consequently the apparent value of manure.

The depth to which the manure is buried is of the greatest influence. A case has just come to my knowledge, of a garden into which stable manure was deeply trenched by a former owner several years since; the present proprietor has recently found the buried manure just advanced to a medium state of decomposition. If manure be covered shallow in a light soil, especially if it be imperfectly covered, in dry weather it may become too dry to be of service to the vegetation. When managed as Mr. CLARK describes, (Co Gent., No. 8, p. 122, 1857,) the results are found to be good. He turns the *moist* and solid manure under a *sod*. Decay goes on with sufficient rapidity—the manure cannot dry up. Will Mr. CLARK have the goodness to inform us how deeply he covers the manure—whether he turns the sod flat or leaves it inclined—and what are the characters of his soil and sub-soil,—especially how porous and how retentive of moisture and of water they are?

Mr. JOHNSTON of Geneva, and Mr. NORTON of Farmington, Ct., if we mistake not, experience least immediate benefit from manure plowed in when fresh. Is this due to the fact that their soils are clayey, and thus oppose the rapid decomposition of manure?

Thus far we have considered the manure merely as direct food to the plant, but the question is by no means so simple. The texture, and what besides is included under the term "physical characters" of the soil, are often much changed by a large application of coarse yard-manure. It may happen that a heavy soil will derive more benefit from the loosening effect of incorporating with it a large amount of vegetable matter, than from the rapid nourishing action of fermented manure. Nay, it may be that the latter action cannot exhibit itself until in some way the texture of the soil has been improved. On light soils, which suffer from too ready drying up of the surface, the application of coarse manure may well assist to rectify this fault, as the power of the humus which would accumulate in the soil by this treatment, to retain moisture, is, according to Schubler, seven times greater than that of sand, and three to four times greater than that possessed by medium loams.

The advantages of fermenting manure are chiefly, 1st, Lessening its bulk and weight, whereby the expense of transportation is diminished by one-third or one half—2d, Converting the crude matters into soluble and available forms of nutriment to the plant, thus quickening the action of the manure—3d, Convenience of incorporation with the soil, the coarse, long litter being broken up and made fine. Rotted manure is best on soils or crops which demand a *quick* fertilizer, and under circumstances where an immediate rather than permanent benefit is desired, and would seem especially advantageous on soils so rich that they only need a little active manure to produce good crops. On the whole it is chiefly a question of time. Long manure acts slower on any given soil than fermented manure; but its effect is correspondingly more durable. The matter of time is, however, one of the greatest importance. We want the manure available at just those periods when the plant may derive the greatest advantage from it, and we want it to become available just as fast as the *rapidly-growing* plant requires.

Thus far we have not raised the question—Does fresh manure suffer loss by fermentation? We have assumed that the manurial value of both is not materially different in amount but only in activity. We have sought to account for the differences of opinion and experience with reference to the use of fresh or rotted manure, by differences of soil, &c.

With this, as with many of the great topics of Agriculture, there are two sides to the question, and when we approach it from opposite points, we may well take a lesson from the story of the Knights, who met where a shield was placed in the highway, and as they halted to admire its costly workmanship, one cried out, "Who raised this silver shield?" to which the other rejoined, "Sir Knight, are you blind to say this is silver? By my good sword, it's the purest gold!" A violent dispute arose, and shortly the warriors flew at each other with such fury that they both were wounded and unhorsed. A good Samaritan who came that way, staunched their wounds and revived them, and then inquired the cause of their dispute. They began to renew the battle of words, but he bade them hold their peace, which they did, and were ashamed as he said, "The shield is silver on one side and gold on the other."

What loss there may be in fermenting manure, will be the subject of a future paper. S. W. J. *Yale Laboratory, New-Haven, Ct.*

◆

THE COUNTRY GENTLEMAN—And here I wish to say for your encouragement, and for the benefit of those who want a sound agricultural paper, that in my opinion the "Country Gentleman" is at the head of the list, and that its sound practical teachings, if read, cannot fail to produce a salutary influence upon the agricultural interests of our country. L. A. B.

ENTOMOLOGY.

No. XIV.—Insects Imbedded in the Interior of Wood.

Mr. N. of Shrewsbury, Vt, in a letter written on the 25th of last March, encloses three specimens of "something" of which he says he had that day found 15 or 20 specimens. He wishes to know their "name, habits, and whether they are injurious to agriculturists or horticulturists." Mr. N. ought to have stated, what we doubt not was the fact, that in splitting some fire-wood at his door, he came upon these insects imbedded in the interior of the wood, without any visible orifice by which they could either enter or crawl out of the cells in which they were lying, in a torpid state. He ought also to have informed us that in some places this wood was decaying, and contained a number of large white grubs which had perforated it in holes the size of pipe-stems, which holes were stuffed full of a powder of the same color with the wood; and he ought also to have told us the kind of wood in which he found them. All these are important facts, which we presume were well known to Mr. N. when he wrote this letter. Why he is wholly silent with respect to them, and asks us to "publish" what the habits of this insect are, and whether it is injurious to field crops or gardens, when he himself knows that it is to forest trees that it is injurious, we cannot divine. It certainly looks as though he was covertly aiming to draw from us an account of this insect, which he can show to be incorrect. But we do not wish to judge him thus harshly, and are therefore willing to suppose, that, being surprised to meet with these insects in such an unusual situation, he simply wishes to ascertain whether any body else has ever seen the same phenomenon, and therefore avoids giving any clue to the circumstances under which he met with these specimens. However commendable his caution may be, in not proclaiming that he has discovered "a unique specimen of a very curious character, unlike any thing ever before seen in the world," until he has ascertained whether it really is such a rarity, he still should have told us, frankly and candidly, what he knows in the premises, before asking us to give him what we know. Our object in writing these articles is to add to our own knowledge, as well as that of our readers. With the extended circulation which the Country Gentleman enjoys, we hope by this series of communications to induce its readers to notice the habits of every interesting insect, and especially every injurious one, which makes its appearance in any part of our country, and send us an account of it accompanied with specimens whereby we will be able to ascertain its name and describe it, so that such insect and its habits will be definitely known through all coming time. From the information thus communicated to us we have already been able to place on record the Hunter weevil, the wheat Thrips, the Prickly Leptostylus, and other insects, whose history was before unknown. And by continuing this course we hope to gradually obtain an acquaintance with all the more important insects of our country. We trust that no new and unknown depredator of this class will be permitted to make its appearance in any district or neighborhood without an account of it being communicated to us.

The insect to which allusion has been made above, is the Pigeon Tremex (*Tremex Columba*), which name appears to have been bestowed upon it by Linnæus merely from fancy, as other species related to this have been also named the sparrow, the bat, the camel, &c., although they are in no respect analagous to these animals. They pertain to the Family UROCERIDÆ of the Order HYMENOPTERA. This insect has some resemblance to a large wasp, but its abdomen is closely joined to the thorax, without any such interval between as occurs in the wasp. It is cylindrical and as thick as an ordinary sized lead pencil, and about an inch and a quarter long, of a black color more or less varied with brownish yellow in different individuals, the wings being smoky blackish and shining. In the female, the abdomen has six light yellow bands, the forward one of which is much the broadest, and all the others are interrupted on the middle of the back. Her ovipositor is formed of very coarse horny bristles which arise from the middle of the under side of the abdomen and project backwards like a tail, reaching a quarter of an inch beyond its tip. With this apparatus she is able to bore deep into solid wood to deposit her eggs. The grubs which hatch from these eggs are white, fleshy, footless cylindrical worms, with a deeply impressed line or furrow on each side beneath, extending their whole length; and the hind end is furnished with a small sharp-pointed black horn or hook which curves downwards. By these marks they may readily be distinguished from other borers in timber. They grow to more than an inch in length, and to the thickness of a lead pencil. They feed upon the wood, gnawing long slightly curved holes. They are placed so deep in the wood, that they cannot thrust their castings out of their burrows, as many other borers do. Hence their burrows are filled and densely packed with this dry powder, and externally there are no indications by which to know that these worms are present in a tree, unless the holes happen to be discovered out of which those which have completed their transformations have crawled.

Dr. Harris states that he has found these insects in pear trees, in elm, and in button-wood. I have found them in maples much oftener than in any other tree, and have also met with them in beech; and in Illinois a female was captured depositing her eggs in the burr oak. It is therefore probable that they infest all our forest trees, except perhaps those of the pine and spruce family. The wood in which we meet with these insects is always in a decaying state, and some persons have hence supposed that it is only trees which are old and beginning to decay, to which they resort. But I have taken the female depositing her eggs in thrifty young maples and oaks. It is therefore evident that they attack timber which is perfectly sound, speedily reducing it no doubt to a decaying state. When they once make a ledgment in a tree they continue to infest it more and more, until it is dead and so much decayed that they are obliged to abandon it and repair to other trees. At the moment of my copying for the press this line, a person informs me he lately met with what I presume was one of these insects, in a maple log, its cell being just large enough for it to be crowded into it, and there being not the least indication of any passage or track by which it had come to this spot. The log was split up by him for fire-wood, and was perfectly sound in every part, and no other insect or worm was found in it. As the eggs of these insects are sunk so deep in the wood, and the larvæ work into it still deeper, it seems out of our power to administer any relief to a tree which becomes infested. Its gradual decay and death probably cannot be averted. Whether it is possible to impregnate the sap and wood of the tree with any alkaline, mercurial or other substance which will destroy these insects without injuring the tree, the present state of our knowledge does not enable us to say. The best thing we can do, is, to make ourselves acquainted with the female Tremex, and whenever one of them is found around the trunk of a tree, or in any other situation, capture and destroy her. Where these insects are found to have made a lodgment in a valuable tree, it may perhaps be possible to arrest their career by winding the trunk and larger limbs with straw or matting, to such a thickness that the female will be unable to reach through it with her ovipositor to place her eggs in the wood. Those grubs which are already lodged in the tree, on completing their transformations, will probably cut their way out through such covering, but will be obliged to select some new situation for their progeny. The knowledge of this insect which we at present possess, is too imperfect to enable us to give anything more than mere suggestions with regard to remedial measures.

The reader is aware that the wood borers generally, like most other injurious insects, are destroyed and their undue multiplication prevented by other insects which prey upon them. But we should expect that the Pigeon Tremex, lying as it does deep in the solid wood, would be quite beyond the reach of any parasitic or predaceous enemy of this kind. And yet, if it were so, and this species were allowed to increase and extend itself unchecked, such numbers would soon be generated that it is probable all the trees in our forests would become infested and destroyed by them. And we accordingly find that He who created this insect and gave it the interior of the solid wood for its abode, knew how to create another insect furnished with a suitable apparatus for piercing deep into the wood, to reach and destroy this one. The mode in which this parasite of the Tremex works its long tail-like ovipositor into the wood is very curious and has never yet been accurately described. To give an intelligible account of this insect, and its singular organs and the mode in which it uses them, would extend this article to an undue length, and we will therefore be obliged to devote a future number to this subject. Asa Fitch.

Kiln for Drying Fruit.

Editors Country Gent.—I noticed in your paper of Feb. 19th, an inquiry for a kiln for drying fruit, and in reply will describe one I have. In the summer of 1855 I was building a smoke-house, 5 by 6—the foundation of brick three feet above the ground for the purpose of depositing ashes—the top of wood, extending six feet above the brick work, with an arch on one side of the brick work three feet long, two wide, in which to make the smoke. While erecting I inquired of my mason if he knew of any good plan for a kiln dry? He replied that he did not, but suggested that I could soon convert my smoke-house into a good one by putting a stove into the arch; and upon his suggestion, when finishing my building I made three doors in front, and put in strips of board 10 inches apart, on which to slide the drawers—putting in the middle one temporarily, to be removed when used for smoking. Had three tiers of draws, six in a tier, making eighteen in all.

I put a box stove in the arch, conducted the pipe around horizontally, then up to the chimney, leaving an aperture through the wall into the building some six inches in diameter larger than the pipe, so that the heat from the stove would naturully pass into the room. I also had sliding doors in the gable, so that the circulation would be brisk when the kiln was first filled, which doors could be closed when the fruit began to dry and the escape of moisture become less.

My drawers I made of strips of boards as follows—18 iches wide—4½ feet long—4 inches deep—cut gains with a saw deep enough to receive a stout twine, half an inch apart—put on the warp first, and then wove in the filling with a long wire, nailing on a strip of lath over the twine to prevent wear, and to keep it in its place.

When apples became fit to dry, we prepared them by cutting the quarters once or twice in two, according to the size of the apple—(care must be taken to have the pieces as near of a size as possible)—and filled our new *kiln-dry*, and were well pleased with the result. We found we could put in seven bushels at once very nicely, and requiring from 24 to 36 hours of time to cure. When they came out they were white and crisp, and by lying in a pile a few days they would absorb moisture enough to pack nice, and when packed will keep without any fear of being eaten up by worms, if not consumed the same season.

Apples thus dried are far superior to those dried in the primitive way, either of stringing and hanging around the kitchen stove as a roost for flies, or spread out and dried in the sun, where they are often injured if not spoiled by storms. As mine is only used in a small way for drying for the family, and what few surplus apples that are not fit for market, I would recommend any one going into the business and drying for market, to build on a larger scale and have more drawers, as I think mine are about the right size to be easily handled. I took the stove out and used the building for smoking a year ago, and not having apples to dry last fall, cannot tell whether the smoke will have any injurious effect on the fruit or not. My impression is that thorough ventilation before using for drying fruit will expel all the odor of the smoke—if it should not, I think white-washing will. H. Daboll. *Canal, Onondaga Co., N. Y.*

Application of Barn-Yard Manure.

Of late there has been much discussion in the columns of the Co. Gent. on the application of manures to the soil, preparatory to planting it with corn. This has been occasioned by Mr. John Johnston's statements of his management and application of manures to his land for the corn crop. For the benefit of new subscribers, who have not seen Mr. J.'s first letter, we give a synopsis of his system. Mr. J. annually sows from 50 to 70 acres of wheat, and also has many acres in oats, corn, &c. He winters from five to six hundred sheep, and 15 to 20 head of cattle. To use up this large amount of straw and corn-fodder, it is daily, through the winter, freely strewn over his yards; what is not eaten is trodden and mixed with the droppings of the stock. Of course during winter the straw does not ferment or decompose. Generally, all this long manure is put in large heaps in the spring, where it remains till sowing of winter wheat, for which a portion of the now *rotted* manure is used. That portion of the manure intended for the next year's corn crop, is in September carted on to grass-land, and evenly spread over it, where it lies till the next April or May, when the land is plowed for corn. His method is objected to on the ground that there must be much loss of ammonia and other gases from the decomposition of the straw and manure during summer, and also from that portion upon the greensward. But as Mr. J. "believes the great *scare-crow*, the escape of ammonia by fermentation, is all gammon," he does not feel disturbed about that matter.

To show that Mr. J. is not entirely alone in his views, we copy a short article from Littell's Living Age of Nov. 15, 1856. It says:

"In a paper on farm-yard manure, by Dr. Voeckler, Prof. of Chemistry, Royal Ag. College, at Cirencester, we find statements that will be a surprise to some farmers. For example: the liquid drainage of dung-heaps, he says, is more valuable than the urine of animals, because it contains phosphate of lime, which is scarcely to be found in the other. That no loss arises from spreading manure on the surface of a field; on the contrary, the fermentation is stopped, and the escape of volatile matters thereby ceases; and if it be let to lie till the rain has washed it in, is far more beneficial than burying it at once. And 'in the case of clay soils,' he remarks, 'I have no hesitation to say the manure may be spread even six months before it is plowed in, without losing any appreciable quantity of manuring matters.'"

From the foregoing it will be seen that Farmer J. and Prof. V. are "hand in glove" with each other. One is a practical farmer, the other is a scientific one. The practice of one, and the teaching of the other, is the very antipodes of the practice of myriads of good farmers and the teachings of other scientific professors. Well may we hard-working farmers exclaim, "What is truth?" L. B.

How to Use Hen Manure.

Messrs. Tucker & Son—In your Co. Gent. of the 5th Feb., I see the request for the experience of some one using hen manure. I have, for several years, kept a large quantity of hens for the *profit*, (as I consider the profit of one hen to exceed that of one sheep,) and have carefully saved the manure, which I put into barrels, and mix it well with ground plaster as I gather it, enough to dry it and to keep it from losing its goodness; then keep it dry till planting time. I then take an empty barrel or tub, and mix the hen manure and plaster with more plaster, so that it will be about two parts plaster and one hen manure, and with a sharp spade chop into the mixture, which will very readily pulverize by a little chopping and spading over, and it is then ready for the hill of corn or potatoes. If I have any left after planting, I use it at hoeing, and find that my corn so treated is not troubled with any worms, and that the crop is equal to that grown where I spread my barnyard manure. I think farmers can safely pay fifty cents per bushel for hen manure, if it has not been laid on the ground. It pays to have boxes under all the hen roosts. There are many farmers that will give away the hen manure to the tanners, but if they will but one year try the above method of using it, they will be perfectly pleased with the result. D. A. Bulkley. *Stone Hill Farm, So. Williamstown, Mass.*

About Strawberries.

Messrs. Editors—I will not attempt to give the reason why those strawberries failed; but if you please I will will give two items of my own experience, and Mr. McCarthy can judge for himself whether our failures arose from like causes. Some years ago, (before I "took the papers") I set a bed of strawberries with plants from a field of two acres which were in full bearing. They were set in August, and were full of flowers the next spring, but at picking time they were not full of fruit. I supposed that was owing to their not being fully established, but in the course of the year I read "Downing's Fruit Book," and the next spring at flowering time I examined them "by the light of science," and found that nineteen-twentieths of them were staminate plants. I suppose the reason of this was that the stamens are stronger growers than the pistils, and one of course always selects the strongest plants. I have since set another "patch," with plants from three different beds, and there proved to be not a stamen among them. Of course the flowers, like Mr. McCarthy's, dried up without fruit.

I have a bed now, however, to the sex of every individual plant of which I can make oath if necessary, and I shall never set another bed without being certain of my kinds. So many are disappointed from the above causes, that I think some of the hermaphrodite varieties, (Peabody's new or Hooker's perhaps,) are better for general cultivation. This, however, is theory. Edwin Y. Bull. *Meriden, Ct.*

Cure for Horn Ail.

Eds. Co. Gent.—I have a cure for the horn-ail, that I do not recollect of ever seeing in your paper. It is very simple, but I have known it to cure when nothing else that could be thought of would. Take a piece of alum as large as a walnut, pulverize it and put it into about a wine-glass full of sharp vinegar—turn up the head, and pour it into one ear. In two or three days pour the same quantity in the other ear. A third application is seldom necessary. A. Allen, Jr. *Littleton, N. H.*

Good and Bad Cultivation—The Difference.

V. Aldrich, of Arispe, Bureau county, Illinois, a skillful and energetic nurseryman and cultivator of fruit, has at our request, furnished the following interesting and valuable facts, showing the difference between good and neglected cultivation, which are but a fair sample of the results of these two modes of treatment, in whatever region of the country they may have been adopted. We commend these facts to the especial attention of those planters who have adopted the notion that fruit trees need no attention, and will take care of themselves:—

My orchard (the oldest part is ten years planted,) has been cultivated every year, and is now the admiration of all who see it, and I must confess that I feel a little proud of it. The ground when planted was raw unbroken prairie. We plowed a few back furrows for the row of trees, the sod was dug and laid one side, holes dug about two feet deep and large, the earth pounded fine and filled in until high enough for the tree, and then the tree set.

Two days ago we measured the height, breadth of top, and size of trunk near to the ground, of several varieties that were planted ten years ago this spring, with the following results: No. 1. Summer Queen, 18 feet high, the top 16½ broad, two feet six inches round the trunk near the ground; 2d. Early Harvest, 15 feet high, 12 feet broad, 22 inches round trunk; 3d. Rawles' Jannet, 17 feet high, 13½ broad, 23 inches round trunk; 4th. Yellow Bellflower, 18 feet 10 inches high, 19 feet broad, 2 feet 7 inches round trunk; 5th. Domine, 18 feet high, 17 feet broad, 25 inches round trunk; 6th. Sweet Romanite, 15 feet high, 17 feet broad, 2 feet 5 inches round trunk; 7th. Wine Sap, 19 feet high, 17 broad, 2 feet 4 inches round trunk; 8th. Honey Pippin, 17 feet high, 20 feet broad, 2 feet 7 inches round trunk. Two years ago last fall I exhibited at our fair, specimens of the Domine that weighed 17 oz., and other varieties of corresponding size.

Mr. T. of H., has an orchard the same age of mine—his was laid down with blue grass for several years. When Mr. T. examined my fruit, he wondered what should make it so much larger than his. He said his were not larger than black walnuts, which I thought very singular; next morning before the fair opened, I visited his grounds to learn the cause of his small fruit, and found his orchard in a close blue grass sod, and that season being a dry one, the little rain we had did not wet through the sod, and the land being naturally dry, the grass absorbed all the moisture, hence the small fruit.

Dr. P. of H., showed me his orchard several years ago. It had all been cultivated and looked well, except one tree planted in grass, that was not one-quarter the size of the others. The spring previous he had it dug round three or four feet on all sides, and applied nearly a load of manure. That summer it made a fine growth, more than it had for the last five or six years previously.

Two years ago Mr. S. bought some trees here, set them out, and sowed spring wheat among most of them, and planted potatoes among the remainder. In the summer I saw Mr. S., and inquired how his trees were doing; be said those in the wheat were all blighting, leaves turning yellow. Afterwards I saw his little son, and inquired after the trees; he said those in the potato patch looked green and nice; those in the spring wheat did not grow any, and some were dead; he remarked that those we thought were blighted, were found to have the bark gnawed off by the rabbits, and added, "I told father we had better set them all in the potato patch." "Very good advice, young man; I hope you will give your father more of the same sort."

Two men, brothers-in-law, living near each other, procured trees here last spring, and late in the season one of them remarked, "I planted potatoes among my apple trees, and all grew and did well. George sowed spring wheat in his, and they are nearly all dead, and those that are alive have not grown any."

[We may add to the above, that in a recent conversation on this subject, with S. H. Ainsworth, of West Bloomfield, one of the best cultivators of Western New-York, he informed us that some years ago, a neighbor nearly seventy years of age, commenced planting a young orchard or fruit garden, and was looked upon by his acquaintances as nearly insane for attempting what *could never benefit him* at his advanced age. He has however given his trees the best cultivation, and some of the cherry trees now measure nine inches in diameter. S. H. Ainsworth has promised to give us the details of this and other similar experiments, as soon as his other engagements will permit, and when received we shall be glad to lay them before our readers. Eds.]

Cure for Mange in Swine, &c.

Messrs. Tucker & Son—Having just read in your useful weekly of 19th inst., a "cure for mange in swine," by the use of a solution of corrosive sublimate, which is therein admitted to be 'an active poison,' and highly dangerous, I thought I would give the mode by which I and my neighbors cure our swine of that disease.

I have just cured *five* that became diseased from bedding with *wheat straw*, which is the *third* litter affected in the same way by the same thing. (*En passant, leaves* being the *proper* bedding.) I have washed them thoroughly with strong liquor made by boiling beef or bacon, with or without vegetables—and if one or two applications did not effect a cure, another washing with tobacco water, made by pouring boiling water over a sixpence worth of stems, has always effected a cure. Sometimes I have thrown into the liquor a spoonful of flour of sulphur, and gave a little also in their food. This cure may be relied upon.

By the way, I read in this No. of a case of *prolapsus uteri* in a cow. Last night I lost a valuable Chester sow, weighing three hundred pounds, after farrowing, the uterus having partially passed from her, and remained so for several hours before an effort was made to replace it, which was unsuccessful, owing, I suppose, to the swollen state of the parts and to our ignorance and unskillfulness in the operation. She died in six or eight hours after farrowing. W. *Baltimore Co., Md.*

Worms in Horses, &c.

Messrs. Editors—A farmer in Co. Gent., March 12, inquires what is the best remedy for worms in horses, &c. I can give a much simpler remedy than the one you copy for him from Dadd's Horse Doctor, and one that I have often tried and never yet known to fail.

Put into the horse's mess, three successive mornings, each time about as much fine cut tobacco as would fill an old-fashioned Dutch pipe.

If a handful of ashes is given every week in a horse's mess, and whenever there is a change in the feed, or a change from hay to grass or vice versa, the horse will rarely if ever be troubled with the botts, or any ailment requiring the administering of Dadd's prescription, or most other farrier's nostrums, for the reason that he will not be ailing. I write what I have tried for years. H. *Brasher's Falls, N. Y.*

New Fruits.—Dr. W. D. Brinckle, of Philadelphia, will please accept our thanks for scions of the *Wilmington* and *Catharine Gandette* pears, and of the *Christiana* apple.

The Value of Ashes

MESSRS. EDITORS—A correspondent of the Co. Gent. of Feb. 5, makes inquiry about ashes, leached and unleached, and what soils and crops are most benefitted by them; and as he has alluded to Long Island farmers (which to me has a sound of home,) I have thought to throw out a few facts upon the subject, believing with your correspondent, Mr. JOHNSTON of Geneva, that however beautiful and true a theory may be, yet that the *facts* as developed by practice, are what farmers want to guide them, if *profitable* farming is the thing sought.

To commence our subject, which is the effect of ashes, leached and unleached, upon soils and crops, I shall not attempt to cover all the ground laid down by your correspondent, but simply "state what I know, and testify to what I have seen."

In this section, the eastern part of Long Island, leached ashes have been used to a greater or less extent, by the farmers for at least half a century. The soil varies from a heavy loam, with no perceptible admixture of sand or gravel, to a light loam, in which sand or gravel predominates, but for the most part is what may be called *a good loamy soil*, adapted to the cultivation of all the grains, roots, and grasses.

This land, as I have said, has been ashed more or less for half a century, according as the opinions, and I may perhaps with truth add, the enterprise of its owners prompted. The ashes used have been mostly leached ones, brought by vessels from abroad, at first at a low rate, but as the effects of their use became more apparent and the demand increased, so their price has increased, and now ranges from $4 to $5 per ton of thirty-five struck bushels.

(The unleached ashes that have been used during this time, have been limited to a small quantity gathered from the inhabitants of a neighbouring village, and altogether too insignificant in quantity to be worthy of particular notice.)

These ashes before mentioned, the leached, have been brought here from abroad, and together with what few were made by the farmers at home, have been applied to almost every kind of soil and crop here cultivated; but as a general rule applied only once in the rotation. This rotation is generally as follows: First, corn, planted on an inverted sod. Second, oats. Third, wheat or barley, which is succeeded by and remains in grass from three to four years, when corn again follows.

The crop to which it is generally applied, is either to corn by spreading it on the ground after it is plowed, either before or after planting—(the better way is probably immediately after plowing, before the harrowing or dragging has been done,)—or to wheat, and then harrow it in with the seed.

Once in the rotation is as often as is advisable, and three tons, of thirty-five bushels, per acre as much as would be needful to apply, as it is lasting in its effects, and if applied to the corn crop in the rotation mentioned, it will have a marked effect upon all the following crops. Upon lands that have never been ashed, (unless they are sandy soils, of the effect upon which I know but little,) they have had for the first one or two applications a wonderful effect, particularly on grass, wheat and corn—often more than doubling the quantity of the former; and instead of causing the small grains, as wheat, &c., to lodge, as is frequently the case by a liberal application of artificial manures, it has a contrary effect, making a stiff straw, and on this account are useful to apply to crops likely to fall, from the use of forcing manures.

The manner of applying is universally by spreading, as evenly as possible, with a shovel from a cart or wagon, and to do this well requires less theory than practice.

As to the comparative value of leached and unleached ashes I am unable to say, and would suggest to your correspondent that he make a careful experiment, say on wheat, and inform your readers of the result.

In conclusion, I should perhaps say a word as to the ultimate effect of ashes upon the mechanical condition of soils and crops; and as your correspondent has hinted at having heard of lands becoming partially sterile in consequence of too free and constant a use of this manure, I will say that I know of a lot near by me, that has, I should judge from its appearance and what others say about it, been ashed almost to death; at any rate it is now "hors du combat," and for a number of years has had the simple treatment sometimes used for old horses—that of turning out to grass, whereby to recuperate perchance its weakened energies, and although it may now be convalescent, yet still will evidently require the sunshine of many a summer, the disintegrating and renewing effects of frost and snow, and the careful dietetic treatment of the skillful cultivator, ere it will again reach the height it once attained. In fact, it would seem to be a field on which the prescriptions of mere theorists might be practiced without any harm whatever. The cause of this I cannot explain; but it is a fact that soils which have been long and freely ashed, seem to have undergone a change in their mechanical condition, and seem more ashlike, and crumble down after the plow, giving unmistakable evidence to a careful observer of having had too much of a good thing.

Corn, planted on land highly ashed for a number of succeeding years, will perhaps grow well and look finely until the month of August, when all at once the stalks will begin to sprawl in every direction, and but half a crop, or barely that, will be the result.

From all this, it will be seen that while leached ashes produce a very marked effect on loamy land to which they have never been applied, yet the effect for good is always less apparent after each application, and should not be followed too long. My own opinion is that two or three applications of say three tons each of unleached ashes, applied once in the rotation as before stated, is enough for at least quite a number of years—perhaps for a man's lifetime. ONE WHO HOLDS THE PLOW. *Southampton, L. I.*

The Pea-Weevil.

A neighbor raises some very large peas, but a worm gets into the seed, and he wishes to know how to prevent it. It is my opinion that they enter when growing by some insect depositing eggs. Please give your opinion in the Cultivator. WM. PROUDMAN. *Globe Village.*

As we are not furnished with any description of the insect, we infer that it is the Pea-Bruchus or pea-weevil, more commonly known as the "pea bug," which is a small oval beetle, about one-eighth or one-ninth of an inch long, of a rusty black color, with a white spot on the hinder part of the thorax, four or five white dots behind the middle of each wing cover, and a white spot, shaped like the letter T, on the extremity of the body. As soon as the young pea pods are formed, they pierce the exterior and lay an egg opposite to each pea, the puncture for which would not be seen without close observation. The small grub or larva from this egg, bores a round hole and fixes itself in the centre of the pea, but commonly leaves the germ of the future sprout untouched. Hence such bug-eaten peas will generally grow when sown. The grub is changed to the pupa state in autumn, and early the next spring is again transformed into the beetle or perfect insect. The best preventive is to destroy these insects before they make their escape, by scalding the peas, which is done by pouring on them hot water, nearly boiling, and allowing it to remain a minute or less, and is then again poured off.

Potato Culture.

Till within the past twenty years the potato was considered one of our most certain crops. Nothing of their rotting in the field was then known; and but seldom were the leaves and tops injured by curl, rust or mildew; and none of our cultivated crops would yield so good returns under ordinary or slovenly culture. But within the past fifteen years a very marked change has come over the former healthy and productive powers of the potato plant. This change has called forth hundreds of theories, guesses, and conjectures, to account for the potato disease. But after all that has been said and published upon the subject, both in this country and in Europe, there seems to have been but very little actual light thrown upon the *cause* or prevention of the rot. As to the cause of the disease, we are probably now quite as much in the dark as when it first made its appearance, though some facts, derived from practical observations, seem in a measure to afford us the means of partially guarding against its ravages, even in bad seasons.

In March, 1851, the Legislature of Massachusetts, by a resolution, offered a reward of $10,000 to any person in that State, "who shall satisfy the Governor and Council, that, by a test of at least five successive years, he has discovered a sure and practical remedy for the Potato Rot."

In consequence of this liberal reward, over one hundred persons communicated their views to the Secretary of that State, many of the writers, doubtless, expecting the reward for their recipes. However, none of the theories proposed were judged "to furnish any perfect cure or preventive of the potato disease." An abstract of these communications was published. Some of them were very lengthy and ably written, the result of much labor and patient research, while others were short and comprehensive, strongly bordering upon the ridiculous We here give the substance of some of the claimants' theories. Jean Rotilom, Chicago, Ill, goes into the sublime, and believes the disease is "caused by an atmospherical influence of a planet," and "will gradually discontinue in the lapse of five years," (in 1856.) If he is right, "there's a good time coming," and that speedily, to the lovers of good potatoes.

James Riley of Cincinnati, Ohio, writes grandiloquently, but declares that the "paltry reward of $10,000 would be no inducement to him to make known the cause and remedy of the disease."

Another says, "the weed called Roman wormwood is the sole cause of the potato rot."

But the similarity of views expressed by the most intelligent and experienced writers relating to the nature, cultivation, disease and cure of the potato, is quite remarkable, from which is drawn some apparently sound and rational conclusions, such as that sound, healthy, whole potatoes are recommended for planting—rather than cut ones or small tubers; well drained, light loamy soils, have generally proved more favorable for growing sound crops than wet, heavy, compact soils. Elevated land, far up the side of a hill or mountain, has usually been found a more favorable location for the growth of the potato, than in valleys or low situations which are more subject to fogs, dampness, rust, mildew and early frosts. New lands have been found to contain more of the essential requisites for a large yield and healthy growth of potatoes, than old and long cultivated, or worn-out soils. Good pasture land, plowed in the fall or spring, and planted early, we have found to be the safest kind of soil to grow a sound and good crop upon; such a land with a small spoonful of guano to the hill, has given us a large yield of perfectly sound Chenangoes, a kind usually considered most subject to the rot. Land having a northern slope is thought by some to be better for growing sound, mealy potatoes, than land having a southern exposure. Cool seasons or climates are said to produce the best table potatoes—therefore it is thought the northern slope is best, as it is least exposed to the heating rays of the sun. The addition of a small quantity of plaster, ashes, lime or salt, or a mixture of some of them, in the hill at the time of planting, or strewn over the tops at the first hoeing, sometimes adds much to the quantity and quality of the crop, without increasing its liability to disease; while a free use of strong, rich unfermented manures seems directly to induce disease; producing rank, ill-flavored, unhealthy tubers, unsuitable for culinary purposes.

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Orchards on Steep Hill-Sides.

Messrs. Luther Tucker & Son—I have paid considerable attention to the cultivation of fruit and trees for the last fifteen years. I have planted about 35 acres of apple, pear, and peach. When I plant my peach orchards, I always plant apples in every row and every other tree.

I do not agree with your comment on the article in the March number of the Cultivator, (Hill Side Orchards.) I have about two acres of steep hill side orchard of apple trees, that are doing quite as well as any I have. My manner of cultivating is—from the upper side I plow the first furrow with one horse, and and then plow down with two horses to about 5 or 6 feet of the next row. Five or six plowings will form a kind of terrace. The grass and weeds that grow on the strip not cultivated, I mow, and mulch the trees, and draw fresh earth on them from above to keep the mice from harboring. I think trees can be planted considerably closer on a steep hill-side, if it is a southern exposure. I should always recommend to plant fruit trees on the best ground we have, yet I think we can make no better use of steep hill-sides than to plant them with fruit trees. We ought to plant on hill-sides with trees if it were for nothing else but the looks. I think the scenery of the country would look much better if planted and terraced as described.

After the strip is plowed down pretty level, it is a first rate place to raise early vegetables, if it is a southern exposure. There is no part of my farm that gives me more satisfaction than my side-hill orchard, as it is a southern exposure and always well drained. I also have a row of nursery trees planted along each row of apple trees. I can work the trees cheaper and to more satisfaction than I can on the level, as the rows are much further apart.

I have been collecting a great many new seedling apples for the last ten years. I have one which we call the Water Apple. It is the best I have out of several hundred kinds. It is very apt to bear every year—flesh tender, high flavor—size medium—in use from December to March. For further description, see Patent Office Report for 1854.

I forgot to mention above that my side-hill orchard is planted thus * * * * * * * to make more rows.

I will send grafts of the Water apple to any one that will enclose a few stamps. Chas. B. Ott. *Pleasant Valley Nurseries, Bucks Co., Pa.*

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Product of One Potato.—I planted last summer, one large potato, which I cut into fourteen pieces, placing one in a hill, and from which I dug in tho fall half a bushel; one of which weighed 1 lb., and twelve weighed 7½ lbs., and nineteen weighed 12 lbs. About a peck of them very large, and the rest good eatable size. The variety was called the California potato. Before planting I rolled them in plaster of paris. S. H. *Stamford, Ct.*

Farm-Yard Manure.

There is no subject of greater importance to the ordinary farmer than this, and its late discussion in the Country Gentleman has been watched with no common interest. For, after various trials with numerous substitutes in concentrated forms, I have settled down to the conviction that the domestic article from the farm-yard is by far the most reliable.

If, then, this is our main dependance, it is highly necessary that the best mode of managing and applying should be adopted. All mere theory on any subject is unsafe. The mind dwelling long on a cherished idea, often looks through a distorted medium, and takes irrelevant matter for proof. On this account, an agricultural paper that embraces a large correspondence, is much to be preferred. When a dispute upon a point of vital importance arises, the general opinion and result connected with any practical operation in farming is obtained; and from such general opinion and practice only can we arrive at just conclusions.

The custom of *summering* manure (as it was quaintly termed by the late Judge Buel,) has long since been discarded in my practice, as injudicious and wasteful. My modus operandi, doubtless, might be much improved, for, as yet, I have no manure sheds or cellars. On this account, as well as others, I am the more strenuous in carrying out my theory; which is, that all the autumnal and winter accumulation in the farm-yards, should be applied in the spring to corn, potatoes, &c., however coarse and unfermented, by spreading it heavily on sward ground for the former, and corn stubble for the latter—turning it in as deep as the plow will well perform the operation. If any is reserved for hills or drills, it is from the hen roost, stercorary, or hog pen. The extreme coarseness of the material we do find to obstruct the plow seriously. The manure of the hog pen is generally composted with wood ashes, in proportion of two of the former to one of the latter. This applied to corn in the hill, when ground has received the treatment above mentioned, rarely ever fails to produce a fine crop. The alkaline property of the ashes, is also nearly a specific against the attacks of grubs and other vermin, while the corn is in its infant state.

Were I situated as some of your correspondents are, too far from large cities or towns readily to procure in the fall season the best material for wheat, I should plant largely in potatoes. This crop, with us, used to be planted on a rotten sward about the middle of June, but the disease compelled us to alter our tactics, and now we plant on corn stubble early in the spring. A long experience has taught me, that more reliance can be placed on ground well manured from the farm-yard in the spring, for a crop of wheat and grass, sown after harvesting the potatoes, without additional manuring, than if the same manure had been carefully kept and applied directly to the wheat in the fall sowing. Another important object is thus attained, viz., the modification of our severe rotation, which is corn, oats, wheat and grass.

In theory it has always appeared reasonable to suppose that the exhalations from farm-yard manure, given off when exposed to the sun's rays, after having been spread broadcast over the field, must seriously diminish its value. The general practice many years ago, in this region, was strictly in accordance with this idea.

A long time since, an old neighbor, who held a contrary opinion, told me that he had repeatedly tried the mode of spreading over the whole field before plowing in, regardless of the solar and atmospheric effect, as contrasted with the common practice, and found it to operate equally as well. His statement induced me to make the same experiment, and after careful inspection, I came to the conclusion that there was no appreciable advantage in keeping manure from the sun by heaping it in the field, or by the extremely inconvenient custom of plowing it immediately under. Since that period, farmers in this quarter, where immense quantities of stable dung are almost daily arriving throughout the year from the city, spread the entire field before plowing under.

Some remarks of your correspondents seem to convey the idea that wood ashes no longer produce their beneficial effects upon our Long Island soil. I have used them more or less, for the last thirty years, and have not found it to fail in any application yet, but consider it the most reliable for grain or grass of any of this class of manures. In conjunction with farm-yard or city stable manures it is almost unfailing. RICH. M. CONKLIN. *Cold Spring Harbor, L. I.*

Application of Manures.

The discussions on the application of manures in your late numbers, is what I like, and the more the better. I will try to give a little of my experience. I had got a notion that manure must be put upon the fields and buried up immediately, to have it do any good or to save it; but I have learned that many of our notions or preconceived opinions, when put to the test by a fair trial, will not always stand. A few years ago I broke 1½ acres of a corner of meadow, and cultivated two crops on it; in order to smooth it and make it fit for a meadow, I sowed it to wheat in the fall, together with timothy seed, and in the spring I put on a sprinkling of clover seed. After the ground was fitted for the wheat and before sowing, I drew out some rotted manure that I had left in my yard, and covered about half of the piece, well scattered. I did it for experiment. I sowed my wheat on the whole piece and dragged it in. The winter was more open than usual in Onondaga County that year; it was in '53-54, and a great deal of our wheat was winter killed. That part of my field that I manured was fair, and that not manured was not worth harvesting. It proved the same with the grass and clover seed—the manured part did well—the other did nothing. Now did the manure keep the ground from freezing so hard as to prevent the winter killing, or did the manure give the young plants a healthy and robust root and constitution, so that they withstood the severe winter?

I spent some time last summer in Michigan, Wisconsin, Illinois, and Indiana. I observed that a good many of their apple trees were dead and dying. They told me the winter killed them. I inquired if there was not some method to counteract their winter-killing. The universal reply was—no, except to let the trees alone—not manure or hurry their growth. Now I stuck a pin there, and if I live long I will know whether an apple tree, well manured and taken care of, will winter-kill before one that is let alone. F. B.

Treatment of Dried Apple Seed.

Will you tell how to treat apple seeds that have got pretty dry—never been packed in sand as recommended by Barry? Should they be allowed to *sprout* before planting them? Can they be sown by a seed drill? C. N. B. *Mt. Pleasant, Iowa.*

We have not much experience with *dried* seed, as we always prefer to keep them in good order, in moderately moist sand or earth. The outer covering becomes hard or horny by drying, and the best way probably, is to pour hot water on small portions of the seed at a time, subject them to freezing and thawing if practicable, and then plant them. In extreme cases, several repetitions of this process may be necessary. Small portions must be selected at a time, so that the hot water may cool quickly, and not destroy the seed, which it will do, if large portions, (as a peck or more) are taken at once.

Wheat in Western New-York.

PROSPECTS OF THE SEASON—HIGHER FARMING REQUIRED—UNDERDRAINING, FEEDING AND MANURING.

MESSRS. TUCKER & SON—Our wheat crops don't in general look well this spring, especially on our clayish soils. We had such a drought last year from the eighth of July until very recently, that wheat on all clay soils came up very badly, and a good deal of the seed perished and never came up. On loamy soils, or on clay even, where sod land was broken up for fallows, it is much better. A vast number of farmers in Western New-York did not sow wheat last fall after having their land prepared for it, as the midge almost destroyed their last crop, concluding to let their fallows lie over for barley in spring—but I am fully convinced that paying crops of wheat can be raised on all the wheat land if we only give it justice. The truth is, the land is exhausted by over-cropping, and it must either have rest or high manuring. My own wheat crop for the last eight years has averaged as much per acre as it did for any eight years since I owned it, which is now over 35—true, some seasons I had a larger yield than I have had the last eight years, but then for the last eight years I have had no failure except by *weevil* or midge—no freezing out in March, commonly called winter killing. My land being underdrained, and fatting a large number of cattle and sheep, I keep up the fertility of the soil. Hence I get paying crops of wheat.

As a further proof that all that is wanted is a higher grade of farming, I will mention the adjoining farm, (Mr. SWAN'S.) Five years ago he only got about or not over six bushels of wheat to the acre; now, by thorough underdraining, feeding cattle and sheep largely in winter, and thus making rich manure, he has raised the average of his wheat crop to from 25 to nearly 30 bushels per acre, and he has now sixty-six acres in wheat that is certainly the best I have seen—in fact it is as good as could be wished. The reason is, it was thoroughly drained and has all been highly manured with barn-yard manure, within the last four years, and if not too much straw, must be an excellent crop.

One would suppose that making such a renovation of the soil public, would induce many to try the same mode of doing it, even if only on a small scale. A farmer cannot, I think, put his hand to underdraining and look back, so long as he has a wet acre in his possession. But draining won't do all. The land must have manure. I have limed a great deal of my farm, and profitably too. I have sowed a good quantity of salt on my wheat, and in general profitably. The time has gone past for farmers to get good crops unless they manure, and that with manure of good quality. Every bushel or ton of oil cake made in the United States should be fed in it—we now need it as much as they do in England. Beef and mutton are only some two or three cents per pound lower in New-York than in Liverpool, and oftentimes not so much, and why should so many thousand tons of oil cake be shipped from here there? Sure I am that our soil needs it more than theirs. I will soon have fed over 27 tons of oil cake this winter. I have now 530 fat sheep and a few cattle. I have also fed a good deal of corn, and manure made in this way tells where it goes. JOHN JOHNSTON. *Near Geneva*, 18*th March.*

Do we need any better answer than is furnished by the above eminently reasonable and practical remarks, to the often urged assumption that farmers in Western New-York will soon be compelled to give up raising wheat at all—except perhaps for the supply of their own immediate wants? We ourselves will perhaps yield its necessity—*unless* our correspondent's advice is more widely followed, and farming of a higher grade—such for example as his own and Mr. SWAN'S, substituted for the present too common modes. We cannot expect that a field, neither refreshed by judicious rotation, nor recruited by proper manuring, will continue unfailingly productive, either of wheat, cotton or corn. But to assert the impossibility of supplying its wants anew,—of rendering its vast stores of plant-food unceasingly, if not indeed increasingly, available for many coming generations—is to erect a barrier impassable to man, in agriculture alone of all the arts, and to question the wisdom of Him, who made vegetable life dependent upon the constituents of the soil. Has not England year after year grown wheat, without our hearing the cry that it is there to be sown no longer, on account of diminished productiveness? On the contrary, is not the average crop in that much-cropped island, rather enlarging than otherwise, and are American farmers to give up, without some hesitation and thought, *their* ability to accomplish as much?

We are quite aware of the ready objection that the price of wheat here will not sustain the high farming practiced in Great Britain. But for a mode of rendering wheat culture profitable at its present price, we refer the objector with confidence to Mr. JOHNSTON. He has achieved this end, and his valuable letters, as they have from time to time appeared in our columns, point every despairing wheat-grower to as certain success. Draining and the manufacture of rich manures by feeding, the use of other appropriate fertilizers and the consumption of oil cake, furnish the outlines of his method. Whether his example is to be more widely followed, and whether this indispensable grain is to continue as it has been, the staple of Western New-York, in our opinion rests far more with the intelligence and enterprise of its farmers, than with any superior fate or necessity in the case.

Mr. JOHNSTON deserves the thanks of the Agricultural community, for the entire willingness with which he lays before them the results of his long and rich experience as a farmer, and we can but commend the above communication to that thoughtful regard the importance of its subject so fully deserves. EDS. CO. GENT.

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Guano for Corn.

MESSRS. EDITORS—I wish to learn the best mode of applying guano to corn. I wish to use plaster also—whether mixed or not with guano, and the quantity of each per acre. By answering the above inquiries you will much oblige one of your subscribers. D. M. M *Delhi, N. Y.*

Probably the greatest benefit from a given quantity of guano, would be from applying it in the hill. The easiest way would be to use Billing's Corn Planter, (for a notice and cut of which see Rural Register for 1857, p. 334,) which may be made to drop any concentrated fertilizer with the corn, and if guano is used, it drops it so as to leave some earth between the seed and grain, thus preserving the seed from the caustic action of the guano. Three and a half bushels of guano and one bushel of plaster, would be an abundant supply—half this would be a fair quantity—and the latter would be at the rate of a spoonful of guano and a teaspoonful of plaster for each hill of corn, three feet and a half each way. The two might be mixed and thus applied together.

If Billing's Planter cannot be had, then mix very thoroughly the guano with five or six times its bulk of dry, pulverized loam, or dried muck, several days before using, and drop half a pint of the mixture into each hill, before planting the corn.

If it is desired to obtain additional benefit from the guano, sow it broadcast besides; which may be done at about 200 or 300 pounds per acre—and if the soil is heavy, harrow it in; if light, turn it under with a gang-plow, before the corn is planted.

Corn Cooked vs. Uncooked for Hogs.

Messrs. Editors—When we read your remarks on cooking food at the close of the first article in the Country Gentlenan for Feb. 19th, certain recent experiments upon the cooking of corn for hogs, made by Mr. Samuel H. Clay, of Bourbon, Ky., the details and results of which were given to the public in the *Valley Farmer* for December, were recalled to our memory. So far as our memory serves us, you have not put the results of these instructive experiments upon record in your columns, and as they might prove both interesting and useful to many of your readers, confirming and more deeply impressing upon their memories the remark made in the closing sentence of the article referred to, we have condensed these results into the smallest possible compass, (knowing that you like the *multum in parvo* system, or the giving of a great amount of useful information in a small space,) and have added thereto a comparison of these results with others obtained a few years ago by Anderson, Colman, Holbrook, &c.

The closing sentence of the article already referred to reads thus:—"Cooking food for swine, unlike that for cattle, has been found to greatly increase its value." The experiments of Mr. Clay confirm the truth of these observations, and tend to prove that the feeding of corn raw or whole and uncooked is bad policy or poor economy. The results of Mr. C.'s experiments, confirmed as they are by those of others, show that the grinding of corn into meal and the cooking of the latter will make one bushel of corn produce more pork than two would do, and nearly as much as three would, if fed whole and uncooked.

The results of Mr. Clay's experiments show that the number of pounds of pork for each bushel of corn was as follows:

When fed in the form of boiled corn,	14½ lbs.
" " " cooked meal,	16½ "
" " " dry corn,	5¾ "

They show also, taking corn at the price it often bears or comes to in Kentucky, namely, at 28 cts., per bush., that the expense or cost of each pound of weight gained was as follows:

On dry corn.	4½ cts. per ℔
On boiled corn,	2 " "
On cooked meal,	1½ " "

As one fifth should be thrown off from the gross increase to give the nett weight, the above prices will represent the cost of making four-fifths of a pound of pork when corn is 28 cents per bushel. Estimating corn at double the price named, which would be rather under than over the average price of corn of late in any market in the State of New-York, then it is easy to see that making pork on Indian corn, fed whole and uncooked, is an expensive and losing business, since four-fifths of a pound would cost 9 cents, or 1 pound a little over 11 cents. It would be better economy to sell the corn when pork and corn bear such prices as they have usually done of late years, since the corn, without the trouble of feeding and slaughtering the hogs, would bring more than the pork which it would make, that is, if fed whole and uncooked.

Let us see, then, if these results, which show a common mode of fattening swine to be an expensive and wasteful one, are in correspondence with results obtained by others. By reference to sundry records of similar experiments, we find the highest estimate of the amount of pork made by one bushel of corn uncooked is about 8 lbs., thus costing about 6 cts. per lb when corn is 50 cts. per bush., or 8 cts. per lb. when corn is 66 cts. per bush., or 10 cts. per lb. when corn is 80 cts. per bushel.

According to the experiments of Colman, Phinney and Holbrook, cooked corn meal, or cob and corn meal will yield from 12 to 16 lbs. of pork for each pound of corn thus consumed.

As the *trouble* of cooking food for swine is the chief reason why the practice enforced by the results above named may not be adopted as it ought to be, we may state that all the trouble taken by one man who got 15 lbs. of pork for each bushel of corn fed out, was merely to put the meal for the next feeding into a bucket just after the previous one, adding boiling water and slops, and letting it stand in a warm place. This swelled the meal.

Growing Potatoes.

Eds. Cult. and Co. Gent.—As several of your correspondents have related their manner of tillage, by which they have obtained a good crop of potatoes, I wish to relate my practice, in which I have succeeded in growing a good crop on light land.

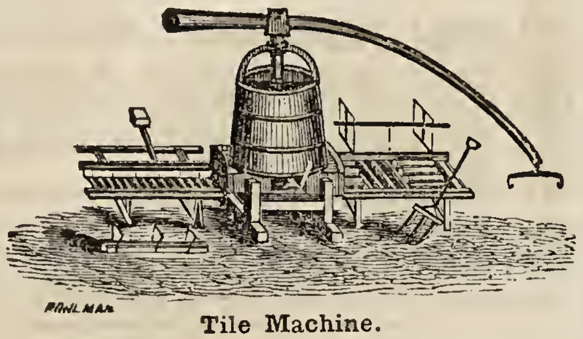
New beginners in this section of Virginia, all experience the want of home-made fertilizers. My system is rather the result of such want than its acknowledged good husbandry. In the first place, I plow deep and harrow, and then make the drills by running the plow each way in the same furrow in order to make it as deep as possible, and then draw my manure, which consists mostly of refuse cornstalks that have been fed to both cattle and horses, and spread in the furrow—drop the seed potatoes and cover. The after culture being the usual practice of cultivating, plowing and hoeing. In speaking to my neighbors of the system I intended to pursue, they said you will fail, as we have tried the practice of manuring in the hill, and although we could grow plenty of vines, yet in harvesting the potatoes were wanting.

After the result of my system of growing potatoes was ascertained, my neighbors said to me, your success was all owing to the fine shower we had just after planting, by which the manure was wet, and being buried deep, it kept moist during the season. Be this as it may, the result was entirely satisfactory, both in quantity and quality, for which I realized over one dollar per bushel.

I perceive there is some controversy in the Cultivator, with regard to the best manner of applying manure, whether in its green or decomposed state. The manure mentioned above, at the time of harvesting potatoes, was just finely decomposed. Query, will it be as advantageous to the after crop as if rotted in the heap? W. Ansley. *Fairfax C. H., Va.*

How to Select Mousers.

Messrs. Eds.—I have tried poisoning rats, but find they soon become very careful what they eat; and I have found that a *good* cat is the most effectual remedy. As is the case generally, there is only one or two mousers in a litter. I will give a rule which I received from a young German, and which I have seen tried enough to know that it is good, if it is a cat story. A poor cat is about as bad as rats. The German's rule was, when the kittens were old enough to be playful, to catch a mouse, and holding it by the tail, give the kittens a chance to play with it; some would grab at it eagerly, while others would be entirely indifferent. The former he would save, and in this way I have known several who have never failed to obtain goood cats. It is very simple, but may be of use to some. Adoles.



Tile Machine.

The above cut represents the Tile Machine manufactured by Pratt & Brother, at Canandaigua, N. Y.

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Proposed Experiments with Salt.

Messrs. Editors—The following "Plan of Experiments" was proposed to the Green Woods, (Winsted, Ct.) Ag. Society, in Feb. last, and recommended for trial to its members. Its publication in your paper may lead to many important experiments the coming season.

PROPOSED EXPERIMENTS.

1. That *winter wheat* or rye receive a top dressing with two quarts salt, four do. lime, four do. gypsum, to eight square rods of ground; to be applied once in five to ten days, or in fair weather, say from the 15th day of April to the 1st of June following. Apply the same amount three to four times. Or, otherwise, take two quarts salt to mix with two bushels of fine compost, equal in strength to barn manure. Apply the same to eight square rods of ground at three or four different times, as before stated.

2. For *spring grain*, oats, &c., apply as before stated, but put on the *whole at one time*, at the time of putting in the crop—i. e., eight quarts of salt to one bushel of lime or gypsum, or marl. Or otherwise, eight quarts salt to eight bushels of compost, to eight square rods of ground. If salt peat or sea-weed be used for compost, *less* salt will be required in proportion.

3. For flax, sow eight bushels of seed with eight bushels of salt, and use from four to eight cart-loads of barn manure to the acre. Stir the soil thoroughly with the plow and harrow, to mix the whole well together, if you would get from eight to ten thousand pounds of flax to the acre.

4. For corn, put on from the *same* to *double* the *quantity* of the same compound proposed for grain, to the eight square rods of ground, and turn it under deep in the soil, or mix it well with the soil by harrowing. Or otherwise, you can put the same compound deep in the hill, with a covering of earth four to eight inches deep between the manure and compost at the time of planting.

It is of the utmost importance that the *tender first root* of corn may not soon reach the manure and be killed, before the strong manure has undergone a *proper change*, or the tender plant has become strong and hardy, by having greatly increased in size as compared to the small tender germ of its early infancy.

5. For potatoes, manure the same as for corn; but use from the same to double the amount, or four times the amount of *salt* prescribed for corn—to be put in the hill or mixed with the soil far down below the seed—i. e., put the salt in the hill near the surface where the potatoes are dropped, and the other manures below, with some three to five inches of earth between the manure and the tubers. But in sowing salt broadcast a much greater quantity may be used with advantage to the crop, as it will be well mixed with the soil in equal proportions.

6. Also it will be necessary to use three or four times as much salt for Canada Coburgs and other large varieties, to insure soundness, as it will need in the case of smaller varieties of the same species, to secure the same result. For the want of salt in the soil, not only potatoes, but most if not all other crops, degenerate or prematurely decay.

7. Proceed in a similar manner in raising cabbage, onions and asparagus—with all vines, such as watermelons, citrons, squashes, &c., to which add the root crops, such as beets, carrots, turnips and parsnips, &c. But strawberries in particular are great feeders on salt, and are said to need, like asparagus, *little* if *any other kind* of nourishment.

8. To this add deep mulching for all vines, so as to allow their roots to go down deep into the soil, and obtain moisture as well as nourishment far down during the dry season.

The same deep mulching should attend the setting out of all fruit trees. The plum and quince will bear considerable salt, while the apple and peach require less salt. Like the pear tree, some others are very fond of ashes or niter—but both salt and niter are very *concentrated fertilizers*, and must be used in very small quantities, or be very much reduced in strength before being applied as fertilizers in *most cases*.

9. Cabbage and asparagus are particular *exceptions* to this general rule. Jas. C. Cleveland. *Winsted, Conn.*

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Drill Sowing vs. Broadcast.

A "Western Inquirer" wishes some information with regard to the best mode of putting in grain, &c. As I have legitimately come into possession of the knowledge he wants by paying well for it, I cheerfully respond to his call.

Drilling is incomparably the best way of putting in wheat. The grain is more equally distributed and better planted. It stands the winter better, and produces more. Beside this more than half a bushel of seed is saved to the acre. The drill I use was made by Kirk, at the Rising Sun, Cecil county, Maryland, and cost about sixty dollars. It measures the ground, distributes the seed in any quantity desired, and covers it very well. Two horses drill about seven acres a day.

A drill of this kind would answer for several small farms, and would pay for itself in a year. At least mine did.

I have used the gang plow for seeding wheat, but the part thus seeded was so much inferior to the rest, which was harrowed in, that I have never used it since. A neighbor of mine who borrowed it and put in some wheat with it, had to lament similar results. T. E. B. *Harford Co., Md.*

Messrs Editors—In perusing the columns of your excellent paper, I find a letter of inquiry from a Western Farmer, on sowing grain, whether or no it is better or more profitable to sow broadcast or drill in the seed? As I have had some experience in that direction, and knowing the opinion of a number of sensible farmers in this locality on that point, I propose to pen down our views or opinions before I get out of my chair—as I am comfortably seated by a roasting good fire. So you perceive warm weather has not come with us yet.

We bought Parme's Patent in 1847; (his premium drill;) drilled in about 40 acres that fall. Upon harvesting the crop we found the same ground yielded about 40 per cent. more wheat than it had before in a long time. We continued to drill in our wheat 3 or 4 years till the weevil made its appearance here, always realizing about 40 per cent. more from the same ground than we did when we sowed broadcast.

We have experimented in sowing spring wheat, barley, oats, &c., in this section, but have never discovered as yet any increase in yield by drilling in spring crops; consequently we sow our grain broadcast, and let our drills remain under shelter. We are waiting very patiently for the miserable weevil to take its exit, so we can commence raising wheat; then our drills will come in play again. We can cheerfully recommend farmers to drill in their fall crops, and sow their spring crops with the machine Nature has furnished them with. G. B. C. *Yates, N. Y.*

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Irrigating Meadows.

Messrs. Tucker & Son—To answer the question of your Boston subscriber, which you have handed over to me, is no easy task, as he has neither stated the character of his soil nor the nature of the water with which he intends to irrigate.

As I know of no soil which cannot be improved by the use of soft water, I will endeavor to give him some information on the subject. He says: "Now what I wish to know is, how long should I keep the water on, and at what time and how often?"

As soon as the frost is out of the ground, let the water on, and keep it on as long as the weather keeps cool. I regard snow water as most valuable for irrigation, and would turn it on to my meadow, if I could not retain it, even before the frost is out of the ground. When the weather becomes warm and dry, let the water on sparingly, and just at evening, or in cloudy weather, in sufficient quantities only to moisten the soil.

Excessive wet, with hot sun, will not produce the largest quantity nor the best quality, on soil through which water does not leach rapidly; and even in such cases I should doubt the propriety of excessive irrigation, although I am not prepared to say what the effect would be where the subsoil is very porus. The water should never be let on for ten or twelve days before mowing, but it should be turned on as soon after mowing as possible. This treatment, in time, will bring a poor old meadow up, improving it slowly each and every year; and had your subscriber adopted this system thirty years ago, when his meadow was first mowed, and continued it every year, it would now have yielded a heavy burthen.

Your subscriber next asks—"What kind of fertilizer (as he has no barn-yard manure) would produce the most hay at the least cost?"

This is the all-important question, and he who can answer it properly has learned an important secret in practical farming.

Grass being the cheapest renovator for broad-acre farming, he who has a running stream of soft water with sufficient descent to flow forty acres of meadow, can make his farm as rich as he chooses in a few years, by selecting one half acre on the stream, of the finest and best material for feeding grass roots, which in all cases should be as much unlike the soil flowed as possible. By placing a dam around it sufficiently high to raise the water two or three feet upon it, you will have provided yourself with the means of enriching your meadow. Should the half acre selected contain marl, so much the better, and it is quite likely that some species of it will be found in the curves of the stream, where deposits were made long since.

Before you let the water into your pond, plow the ground in the pond deep and fine; then turn in the water about two feet deep, and hitch a span of horses to a heavy cultivator, letting a man ride one of the horses to keep him out of the water; then commence cultivating, and when the water is sufficiently thick, let it run off by means of a gate in your dam, as fast as it can be advantageously distributed over the surface of your meadow, and in the mean time keep your cultivator at work as long as you continue the draft from your pond. As soon as your first plowing is all washed off, and it is sufficiently dry to plow again, continue the same process of flooding your meadow, as there is not much danger of making a forty acre meadow which only yields fifteen tons of hay, too fat in one or two years, and mark the beneficial results. It might be well to plow a small part of your pond deep, and run the composition on a particular portion of your meadow, and see which material, the surface or subsoil, will do the most good.

I have flowed separate pieces with different varieties of composition, and have found too much difference in results to attempt to explain them in this communication. I will only state what I have found to be by far the best material. I left one-half of my pond—one-fourth of an acre—for two years, until it had accumulated a sod sufficient, when burned, to make three hundred bushels of ashes. These I mixed with the earth by once plowing, which made the mixture about one-twentieth part ashes, and then turned in the water and stirred up the material thoroughly with the cultivator, when I ran it on to about three acres of meadow. This made the best top-dressing I have ever seen.

In warm dry weather, after the grass gets considerable length, I would only recommend letting on the clear water as above.

In five years time, by this process, that poor old worn-out meadow, which now cuts but little more than one-fourth of a ton to the acre, might be made to cut at two mowings, the same season, four tons to the acre; and this I know could be done at a much less expense than any man could draw and spread barn-yard manure, however convenient. A. B. Dickinson. *Hornby.*

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Earthing up Fruit Trees.

Messrs Editors—I have been obliged, in grading a lot, to place a layer of earth to the depth of 5 or 6 inches around my fruit trees. The trees are about 6 years old, and in a very healthy state. Will you please put me in a way of ascertaining what will be the effect of this earthy deposit on my trees? D. H. McCoy. *North Orange, N. J.*

The effect will not probably be injurious. We have known *porous gravelly soils* applied to the surface to a depth of two or three feet, where trees 10 or 12 years old grew, without injury. A heavy soil would probably have produced a different result. The depth of application mentioned by our correspondent, would not probably in any case act detrimentally—being different from deep planting, which places the roots down in the hard cold subsoil; while coating the surface leaves all the good soil among the roots, and only operates as a very thick mulch, provided vegetable growth is excluded from it

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Cure for the "Stretches."

Messrs. Tucker & Son—Since we have had the care of a flock of Merino sheep, we have, during the winter season, lost some of the best specimens of the flock by this disease; and after using most of the medicines recommended, have thought the disorder incurable. This winter we were induced to make trial of unground mustard seed in connection with castor oil. We gave a tablespoonful of the seed, with a little more than that quantity of oil mixed together, and in an hour or two the animals were chewing their cud, and were soon well. I informed a skillful sheep breeder in this neighborhood, who had at the time two desperate cases on hand. The mustard seed and oil was given with complete success. The disease should be attended to in its first stages; and in order to be able to do this, the person who feeds the flock should remain a while after feeding, to ascertain if any are off their feed, and showing signs of sickness. We communicate this matter to the "Cultivator," thinking it may be opportunely for another winter, if not this. Charles Colby. *Meriden, N. H.*

Brush Drains.

I see in the Rural Register, reference made to *brush drains* made by Judge Buel; I wish to know where I will find a plan for constructing such drains. S. P. Mc Neill. *Lone Tree Farm, Wayne Co., Iowa.*

We know of no published directions for making brush drains, except imperfectly, in a marginal note on p. 28 of the Cultivator for 1835. As we have successfully employed this mode, a brief description may be useful to some of our readers.

The drain for brush is dug like any other drain, but is best if a foot or more wide. The brush may be cut a few feet in length, and should not be more than an inch or two in diameter. If the branches are straight and nearly parallel, they may be larger and longer than if crooked and spreading—in the latter instance they must be cut quite short, or they will not lie well. Commence always at the *upper* end, and let the butts rest on the bottom of the drain, with the tops pointing upwards, or *from* the descent. This position tends constantly to throw the descending water to the bottom or lowest part of the drain. If a sufficient quantity of brush be laid in, to fill the ditch, fig. 1, it will occupy, after being trodden down and the earth filled in, only about one-third of the ditch, fig. 2. Inverted turf forms a good cover for the brush before throwing the earth in. The sides should be nearly perpendicular, or the brush will not settle well.

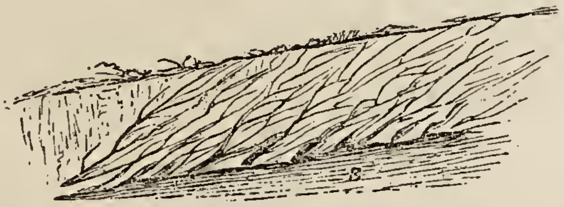

Fig. 1.

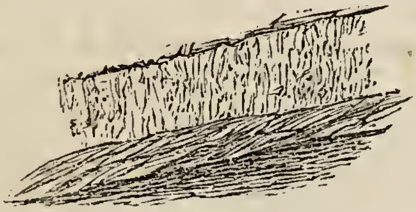

Fig. 2.

Where the quantity of water to be drawn off is not large, or where there is a rapid descent, brush drains succeed well; and where there is plenty of brush, are quite cheap. On nearly level land they should not be used. Being nearly excluded from air, the brush will last many years. Some kinds, as for example, cedar, will last much longer than others. But even when quite decayed, there will still be a good channel for the escape of the water, in the many veins left among the decayed branches, the earth having become compact and well settled above, especially in soils ot some tenacity.

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How to Save Girdled Trees.

Eds. Cult. and Co. Gent.—Thousands of young fruit trees have been girdled during the past winter in this vicinity, by the mice; and if not attended to in due time must of course lead to a total destruction, while by a very simple process their lives can be saved. My method is, when the sap flows freely in the spring, take a keen knife, run it around the trunk above and below the wound, cutting to the hard wood, and peel the gnawed bark off if any; when that has been done, take another piece of bark, just to fit, and replace it,—then spread a rag with grafting wax, and bind it so that the water cannot penetrate any part of the wounded trunk. We have many trees which I shall treat in this way this spring. C. R. C. Martin. *Washington Hollow, N. Y.*

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Use of Plaster.

Gen. R. Harmon of Wheatland, Monroe Co., in a recent communication to the New-York Chronicle, says that for the last "twenty years no judicious farmer has thought of sowing clover seed, without giving it a dressing of plaster. Clover is not the only crop that requires a dressing of plaster; almost every crop is benefited by being plastered, if the manure is returned to the soil. The application of one hundred pounds of plaster to an acre of grass will, in the average of seasons, give one-third more of grass. If fifteen cents worth of plaster will give one-third more grass, where is the farmer so blind to his interest as not to apply it."

He gives the following directions for applying it:—"Plaster should be sown at the rate of one hundred pounds to the acre, and as early in the spring as the ground is settled so as to admit of going on to it, and on all grain crops as soon as they make the appearance above ground. Potatoes should never be planted without being wet and rolled in plaster. Plaster draws the ammonia from the air and increases the dew on the plant, and retains it much longer on grasses than it would remain were plaster not sown. On clay soils that are somewhat wet, plaster has not been beneficial; on sandy, gravelly, and loam soils, plaster shows its operations to the best advantage."

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Spanish Affinities.

Of these, some of our fanciers admit four: the *Minorca*, the *Ancona*, the *Andalusian*, and the *Leghorn* fowls, though the English class the last with the Andalusian.

In Baily's Hand-Book of Poultry, he says there are in Devonshire, England, great numbers of degenerate Black Spanish, known by the name of *Minorcas;* and the Poultry Book speaks of them as abundant in Cornwall.

Both sexes have large, deeply serrated falling combs, which, with their wattles, are quite as large as the pure Spanish. Their plumage is entirely black, though somewhat less brilliant than the Spanish; and they also lack the white face of the latter bird, possessing only a white ear-lobe, the face being red. They have shorter legs and are square built, but lack the sprightliness and dignity of bearing that distinguishes the true Spanish; while their weight is about the same.

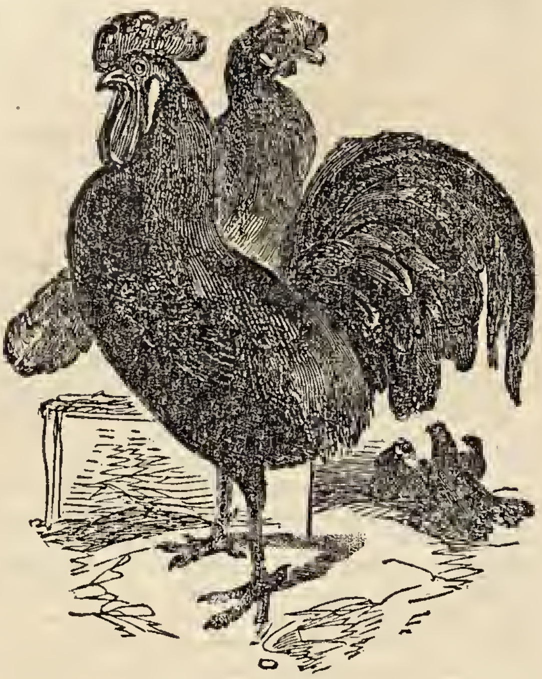
These birds are said to be excellent layers, rarely showing any disposition to set. In England they are considered less hardy than the Spanish. In this country, this degenerate bird is often sold for the true Spanish, not one in a thousand knowing the difference, though there is almost as much difference in their form and carriage as there is between the stout dray horse and blooded racer.

The *Ancona* fowl is as nearly related to the Minorca as first cousin, agreeing with it in general description in almost every particular except color, which is usually a mixture in nearly equal proportions of black and white, but without any regularity. There are also other shades of color, but none of a pleasing character.

The Ancona is rarely met with in this country, though we have seen a few.

The *Andalusian* fowl is another relative of the Spanish, possessing the same general character as the two preceding birds, but differing from them in color, its color being a mixture of black and white and gray. They are nearly as tall as the Spanish. Mr. Doyle, in his late work, says this bird is unquestionably a cross of the Spanish with the original domesticated bird of

Spain called the gray Manx. The comb is the same as in the Spanish, that of the cock bird being erect, or nearly so, and evenly serrated, while the hen has a large pendant comb; ear-lobes in both sexes white; cheeks whitish; color, white, black, gray, or mixed. The darkest birds possess the whitest face.



THE LEGHORN FOWL.

The Poultry Book mentions a Mr. John Taylor, Jr., an English poultry fancier, who has been experimenting with the Andalusian fowl in reference to the production of stock that would thrown a uniform colored plumage, and who has been greatly encouraged by his degree of success. Mr. Taylor thus describes his birds: "The following are the points to which I attach most importance: comb large, erect, and evenly serrated; cheek white; legs bluish; plumage bluish-gray or dove-color, each feather being lightly margined with a darker tint. Hackles glossy, velvety, black, falling evenly on each side of the breast, in strong contrast to the color of the latter; tail full, carried very uprightly, with the sickle feather well arched. The hens have the same colors, but pendant combs." At the date of this note, Mr. Taylor admits that his gray birds sometimes bred speckled chickens, caused, as he thinks, from their having been long intermixed in Spain, which causes them to throw back occasionally.

These gray birds are scarce in America, and it is to be hoped will long remain so, as we already have crosses enough without them.

The "*Leghorn*" fowl is claimed as still another relative of the true Spanish. It is as yet little known here; and as we find no such name in the English Poultry books, we infer that it is eitheir not known there, or if known, is either classed with one of the preceding Spanish affinities, or is considered of so little consequence as to pass unnoticed. So far as our observation extends, the cock birds have large erect combs, which with their large pendant wattles, are bright scarlet; while the hens have very large drooping combs; faces of both red; ear-lobes either red or with a blush-colored border, and a yellowish-white center; color white or black, some of the black cocks having red hackles; bodies rather thick and square; legs somewhat shorter than the Spanish, while the shanks and toes are blue.

In a letter recently received from JOHN GILES, Esq., of Connecticut, and he is certainly a very competent judge, he says that "the Leghorn fowls no doubt approximate nearer than any other fowl to the Black Spanish." Like the Spanish, they are said to be good layers, and not inclined to sit. Their weight is about the same as the Spanish.

We do not recollect that we ever heard any reason given for calling these birds Leghorn, except that their ancestors may have been shipped from Leghorn, in Italy, or that some one has seen similar fowls there. It is not from the name above that we come to this conclusion, but from the fact that similar fowls are largely bred all along the northern coast of the Mediterranean.

A Mr. Barber, correspondent of the Rev. Mr Dixon, author of the "Ornamental and Domestic Poultry," says "that he imported choice fowls from Spain in 1846, and also in 1847, and that he obtained some that were pure white, in shape and carriage exactly like the Spanish, only wanting the white cheek-patch;" while one cock that he obtained in 1846 was "entirely black, and long in the legs, but without the white cheek-patch;" others were speckled black and white, longer in the leg than the Polish, "having top-knots, and a tuft of feathers hanging under the throats, and white legs." This gentleman's white fowls, and the black one, if we do not widely mistake, were exact types of these new-fangled "Leghorns," and were called Andalusian in England. We do not wish to repudiate these fowls by any means, for they evidently have enough Spanish blood to make them excellent fowls, but we enter our decided protest against so many new names for merely mongrel sorts, or sub-varieties, as have flooded our country for the past few years.

The Short-Horns.

MESSRS. EDITORS—The Short-Horns, as a distinct breed of cattle, have been held up before the agricultural population of England for more than half a century, and the great superiority that has been always claimed for them is in the fact of their early maturity and their capability of attaining very heavy weights at an early age. I have no doubt that most of your readers are so well acquainted with English Agricultural History as to make it unnecessary that I should take up your space in making any quotations from it. The books are filled with facts and experiments, made, not altogether by breeders whose object was to sell their cattle at high prices for stock, but by men whose business it was to raise beef for market, and who made the experiments to satisfy themselves that the claim for the Short-Horns was a just one; and all their statements go to establish the fact that, while as a breed they are perhaps as good milkers as any other, their point of excellency is early maturity and great aptitude to fatten.

Of the Herefords, I do not personally know much, never having had any experience with them. I have often seen them at the State and County Shows, and always considered them good cattle, though to my eye they are not so handsome, and I have heard is said they were not so quiet as the Short-Horns. If, however, they will attain the weight Mr. SOTHAM mentions in your paper of the 19th inst., at the age of three years, without extra feeding, and very extra feeding at that, they are good enough for any man; and as soon as I am convinced that it can be done, I shall go to raising Herefords, as I am in favor of the animal and the kind of farming that pays best. My private opinion is, however, that Mr. S. will find, when he gets *his* 3-year-old Hereford steers, raised without forcing, on the scales, that they will fall off just about one-half from the weights he mentions.

After all said and done, Messrs. Editors, we who expect to make our profit by raising *beef for market*, cannot afford to buy either a herd of Short-Horns or Herefords to raise beef from, and what we want to know is, not which animal can be forced to the greatest weight in the shortest time in England, but from what animal can we here in York State, get a cross with our native cows that will give us the most beef for the amount of food consumed, in the shortest time, with fair attention only. My impression, founded upon my own experience and observation, and backed up by that of many others, is, that the animal we will obtain the most benefit from is a pure-bred Short-Horn. Mr. Sotham says Hereford, Mr. Chapman says Devon, somebody else says Alderney; and some other man says there is more in the feed than in the breed, and the Natives are as good as any. Unfortunately we have no carefully conducted and reliable experiments made in this country, to decide the question. Our agricultural journals are filled with opinions and speculations on raising stock, showing that there is a very general desire among farmers to be better informed on the subject.

When we consider the immense numbers of cattle that are raised throughout the country, if it is a fact that from some particular breeds the same weight of beef can be obtained with one year's less keep, the subject resolves itself into one of vast importance in the economy of the country. It is true that to carry on a series of experiments for a number of years, taking a lot of calves and bringing them up until they are ready for the market—keeping a correct account of all the feed, &c., they consume, is prospectively a tedious business. But there would be an excitement and a satisfaction in being able to ascertain the truth in reference to the matter, to say nothing of the advantage the knowledge would be to yourselves and others, that would in some measure compensate for the tedium and the extra labor. It would be a trial in which most farmers would take great interest, could there be instituted a series of experiments, to be carried on fairly and honorably, not for the purpose of building up the character of any particular breed of cattle, but of arriving at the truth as to which of the breeds now offered to the people of York State, will in this State produce the most beef in the shortest time in proportion to the quantity of food consumed. I would therefore propose to Mr. Sotham, Mr. Chapman, and any other gentlemen who have herds of Alderneys, Ayrshires or native cattle, that we should each take twelve steer calves, of the first cross between a pure bred animal of the kind we prefer and the native cows —the calves to come from our own herds, or to be bred under our inspection, that we may be certain they are of that cross—that we shall keep a correct account of the milk fed while they are calves, and also a correct account of all feed they may consume other than grass and hay, which each shall feed at option, giving a statement of the character of his farm, and the manner of such feeding—that the animals shall be weighed at least four times per year, the weight and increase to be noted down, and that a report of the state of the experiment shall be made in the Country Gentleman once a year. I would also propose that they should be divided into four lots of three head each, and fed on the different kinds of feed, roots, &c., thus settling in the same experiment the value of the different kinds of food for certain breeds.

I can get the Short-Horn grade calves from my herd within the year, but not immediately, and if there is any other of your readers who can get them sooner, and will carry on the experiment, I would be pleased to have them do so. If there is no one willing to undertake it, I stand ready. What say the gentlemen? William Bush. *Canisteo, N. Y.*

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Drawing Water from Deep Wells.—Will you please say through the Country Gentleman, whose patent of pump you would recommend for farm purposes, combining economy, utility, and durability, for a well 60 feet deep. A. C. Hunt. *Freeport, Ill.* [We intend to furnish within a few weeks a figure and description of a contrivance for drawing water from deep wells, which we think will be just the thing wanted.]

Apples for the West.

In answer to an inquiry, our correspondent, V. Aldrich, of Bureau county, Illinois, makes the following statement in relation to the most suitable varieties of the apple for that state:

As to the best varieties that are adapted to the west, I think it too soon yet to warrant any one to make a permanent selection. The winter of 1855 upset all former decisions, or to a great extent. Trees that fruited in '55 were injured, and in some cases killed outright, when the same variety for some cause did not fruit that season, went through without being hurt, and so it was with nearly all varieties throughout as far as I can learn—and vice versa. I will name a few varieties that prove hardy here, as well as those most tender. *Hardy*—Early Harvest, Red June or Carolina, Summer Pennock, Early White, Sops of Wine, Am. Summer Pearmain, Fameuse or Snow, Hawley, Maiden's Blush, Fall Wine, Sweet Wine, Domine, Rawle's Janet, Wine Sap, Willow Twig, White Bellflower, Yellow do., Herefordshire Pearmain, Wagener, Sweet Romanite, Swaar, Honey Pippin, N. Y. Pippin, Red Seek-no-further, Michael Henry Pippin and Pennsylvania Vandevere.

Tender—Baldwin, Roxbury Russet, Rambo, R. I. Greening, and Tompkins County King, little more hardy than the three preceding—all others are about alike or nearly so. I have the Roxbury Russet from two different sources; one was badly top killed and the others not any, in winter of 1855. R. I. Greening is too valuable an apple to give up as yet; I have 50 trees in my orchard, but one was hurt much by the winter of 1855, that fruited full the summer of 1855. All those that did not fruit that season were not hurt much to do any harm, although about the same size and age, and standing in the row only 30 feet distant. My orchard contains 570 trees, planted from two to ten years, and I intend to plant from three to four hundred in the spring, viz: 50 R. I. Greening—100 N. Y. Pippin—100 Willow Twig—50 Tompkins County King, and 50 White Bellflower; the balance in specimen varieties.

Apple Tree Borer.

Messrs. Editors—Will you please inform me if tar or paint, applied to young apple trees will injure them—if not, will it be a preventive against the borer fly? O. K. Hadwen. *West Poultney, Vt.*

It is said on good authority, that a mixture of a pint of flour sulphur, a gallon of soft soap, and enough strong tobacco water to reduce the whole to the consistence of paint, applied to the trunk and about the roots after the earth has been scraped away, will effectually *exclude* the borer, if it has not yet attacked the tree. The hot rays of the sun on a coating of tar has caused the death of trees; but we are informed by A. G. Hanford, a skillful western cultivator, that he has repeatedly applied a coating of tar and linseed-oil very early in the spring to apple trees, without any injury. It soon dries hard, and afterwards cracks as the bark expands, and peels off during summer, carrying with it the *bark lice*, for whose destruction it was applied. But any oily or greasy substance, which does not dry and crack, and especially if applied during the heat of summer, would prove certain destruction to the tree. The tar and linseed-oil mixture would not probably keep out the borer, as by cracking open it affords an entrance.

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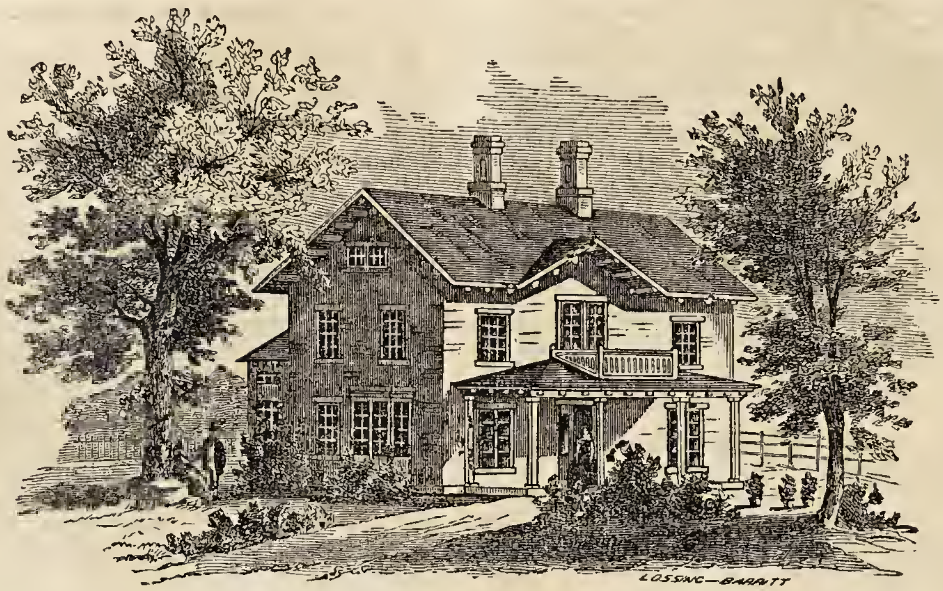
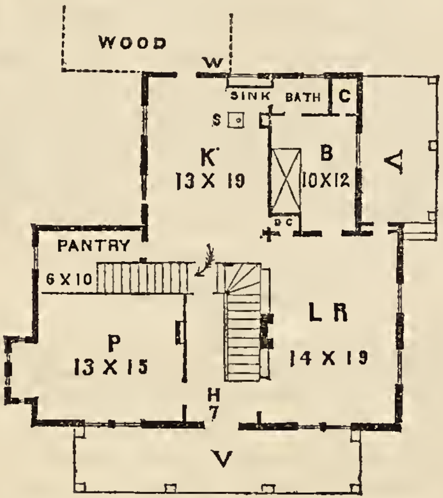
One house in Louisville has cleared no less than $300,000 during the last season in the pork trade; another $208,000; another $150,000; and several $100,000 each. So say the papers.

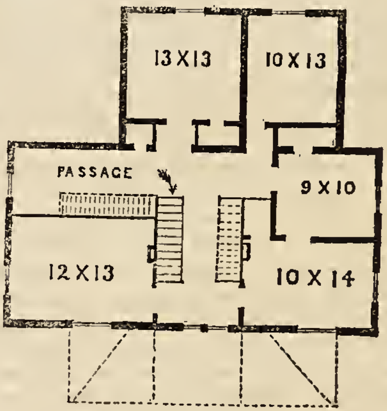


Plan of a House.

We furnish a plan and view of a small two-story brick house, for a country residence. The plan with a few slight alterations, was designed by B. W. Steers of Adrian, Michigan, and combines many conveniences. We have added a perspective view. The advantages of this plan are: the three rooms most used, are in direct contact with and easily accessible to each other; the family bed room, (B.) although near the kitchen, (K.) is sufficiently secluded, not opening to the latter; the bath room as should always be the case, opens to the bed room and to the kitchen, at a convenient point for both hot and cold water; the kitchen stove, (marked *s.*) stands remotely from the pantry and living-room doors, rendering these cooler in summer; the dish closet (D. C.) is accessible to both kitchen and living (or dining) room—to the latter it may be by a mere opening and slide. The cellar is entered from the kitchen beneath the front or hall stairs, and is thus quite accessible to both the kitchen and dining room. The *back stairs* start at the back end of the hall, and land over the pantry. The garret stairs start from the passage at the head of the back stairs, and the garret is thus reached without passing through the front rooms and hall. "A flue," observes our correspondent, "should ascend into, or up the side of the living room chimney, to ventilate the cellar The bath-room floor may descend toward the corner next the sink, where the water can pass out, and flow off with that from the sink and well." The cistern for rain water is in the cellar, directly under the sink, where it may form a square apartment built of masonry, extending up nearly to the joists and covered with plank. A pump passes up through the floor, and flows into the sink, and a tube with stop-cock may pass through the side wall into the cellar. The well (w.) is just without the kitchen door. The back door of the living room, opens by means of a double door, with a space of air enclosed, on the back veranda (V).



PRINCIPAL FLOOR



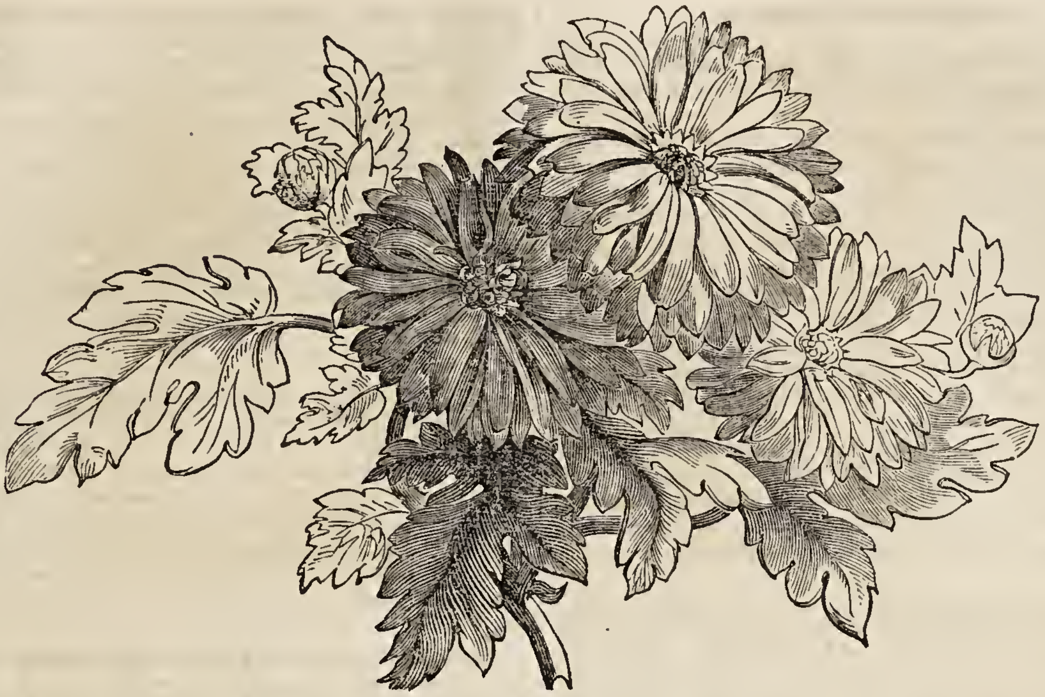
SECOND FLOOR

This house is intended to be of brick—and as the prevailing winds in Michigan are west and south-west, it is intended to front the south, which will place the living-room on the sheltered side.

It may probably be built in a plain and substantial manner for a sum not exceeding $2,200—the cost would vary $500 with the degree of finish and varying price of materials in different localities. If made of wood, it may be afforded for $400 less, at the average relative price of brick and lumber.

Setting out Trees.

Having lost several forest trees the first year of setting out, I took the advice of a friend at my side, not a "Country Gentleman," but a city merchant, and from his directions my few trials since have been successful. His plan is as follows: Dig the pit, put in the trees, placing the roots and securing the trees properly—having in a tub earth mixed with water until thin enough to run off, pouring the same upon the roots until well covered up. In a short time the water will leach off, leaving the earth as compact around every little root as it was in the bed from which it was taken. A. C. W.



THE CHRYSANTHEMUM.

How Chinese Cultivate Chrysanthemums.

Our autumn or winter king, the Chrysanthemum, is a great favorite with the Chinese, from whence our supplies originally came. Mr. Fortune's visit to that interesting country brought us many highly useful facts in connection with its vegetation, both as in a state of nature and under the artificial culture of the Chinese gardener. It would seem by Mr. F.'s account that we have something yet to learn in the culture of this flower, before we can come up to the celestials.

The cuttings are struck from the young shoots in the same way as we do here, but when rooted, instead of potting into small pots as we do here, they are potted off at once into the pots they are intended to bloom in, or treated in what we call "the one shift system"

They use a very rich soil for potting, which about Canton is first from the bottoms of lakes and ponds where the *Nelumbium* or water lily grows—being laid up some months to dry and pulverise, when it is mixed with old night soil taken from the manure tanks found in every garden.

A heap of this kind, after being laid up some time and frequently turned over, is in a fit state for potting the Chrysanthemum.

They are also liberally supplied with manure water while growing, its effects being very plainly visible from the luxuriant foliage which covers the plants.

It seems the Chinese are fond of training their plants into all kinds of shapes, as animals, &c, as well as "forming the plants into compact bushes"—the latter the writer tells us, by training them with a single stem, which is forced to send out numerous laterals near its base, these being tied down in a neat and regular manner with pieces of silk thread. As in this country, it flowers during the winter months. E. S.

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VERMONT STOCK JOURNAL.—We have received the 2d No. of this new work, just commenced at Middlebury, Vt., by D. C. LINSLEY, author of the History of Morgan Horses. It will be found interesting to all stock-breeders, and especially so to those interested in Morgan horses and Vermont sheep. [See advertisement.] The article in this number on "Doctoring Sick Animals," should have been credited to "Tucker's Annual Register."

How to Raise Turkeys.

MESSRS. EDITORS—Will you allow me, in farmer style, through your Cultivator, to give my experience in raising turkeys, for the benefit of your readers. I commenced raising turkeys about three years ago, but never met with any success until the last season, 1856. The winter previous, I wintered one tom and two hens, and they laid 60 eggs, from which I raised forty-five turkeys from fifty hatched. Until the last summer, I never could raise over one-fourth that were hatched.

My mode of raising them is as follows: I made each hen lay two settings, which they will do without injury if they are well wintered. I set two settings under dung hill fowls, and the remainder under turkey hens. As soon as they are hatched, I have crates provided, and immediately shut them up, and keep them shut up for four weeks; and then let them range any where on the farm. I feed them on Indian meal, and keep buttermilk constantly before them. I throw about half an ounce of asafœtida in their milk each day, and this keeps them lively, and they are never bothered with lice. When I let them out, they seem to grow up without any more trouble.

I think there is nothing that will afford our farmers greater profit than turkeys if managed in this way. I think the whole secret of my success lies in the aaofœtida. My debt and credit stand as follows:

	Dr.
To 3 old turkeys,	$3.00
To 4 bushels corn,	3.00
To meal fed young ones.	5.00
To 1 ℔ Asafœtida,	96
	$11.96
	Cr.
By 45 turkeys raised and sold at $1,	$45.00
By 3 old ones,	3.00
By 2 bushels manure,	3.00
	$51.00
	11,96
Leaving a net profit of	$39.04

on three turkeys in one year, or $13.00 profit on each turkey.

If any of your readers can give me any more advice on the subject, I will be thankful for it. JASON H. TUTTLE. *Sandyston, N. J.*

Inquiries and Answers.

Work on Evergreens.—Do you know of any work on the propagation and management of Evergreens worthy of confidence. J. Ford. *Princeton, Ind.* [We know of no book exclusively devoted to the propagation and management of evergreens. There is a short article on the subject under the head "*Conifera*" in Johnson's Dictionary of Gardening; and the fourth volume of Loudon's great work, the *Arboretum Britanicum*, is almost wholly devoted to evergreens, and contains minute directions for the management of the different species. On account, however, of the great difference in the heat and humidity of climate, quite different treatment is needed for the young seedlings here, especially in shading them the first year or two. We have no treatise on the American propagation of evergreens, and not until very recently has it been successfully attempted. The best thing would be to take Loudon's directions, and modify them according to the difference of climate, under the guidance of good, common sense, practical knowledge.]

Inquiry.—Three weeks ago I sold a Devon cow to one of my neighbors. He drove her to his residence, four miles, very carefully, and the fifth day she calved. It being a nice heifer calf, and as he wished to raise it, he allowed it with the cow but once thereafter. He milked her thoroughly three times a day. After a few days he perceived that her milk was still bad, and it remains so until the present time. The milk is decreasing, and the cow will soon go dry. The appearance of the milk is of a dirtish hue, with stringy lumps interspersed, and has been so from the commencement. Can you or any of your readers tell the cause and remedy. He has applied several remedies, and as she is a full-blood Devon, he does not wish to fat her unless obliged. She was a most excellent cow for milk last season. G. Berry. *Burnt Hills.*

Culture of the Cranberry.—In your paper of 5th March, E. W. McConnell asks the best mode of cultivating the Cranberry. I advise him to procure a treatise upon "Cranberry Culture, by B. Eastwood." It contains all the information requisite. The experience of several of my neighbors is, that it cannot be grown successfully on dry upland. No novice should attempt its culture without instruction such as this book gives. Isaac Dillon. *Zanesville, O.* [Mr. Eastwood's book can be had at this office—price 50 cents—by mail, prepaid, 60 cents.

One Horse Mower.—Cannot Mr. Ketchum or some of our reaper manufacturers get up a one-horse mower and reaper that will work light and handy in our lawns, and for occasional use to reap a small patch of wheat or oats—also to connect a gathering box for short grass on the plan of Swift's lawn mower? This would meet the ease of a large number of small farmers. It should cut a swath of at least 3 1-2 feet. s. j. s.

Town Ag. Societies.—Will some of your correspondents, who have had experience in the formation of Town Ag. Societies, give us the benefit of their experience through your columns? We are making an effort to organize a joint Town Ag. Society, comprising the towns of Unadilla and Sidney, and we are sensible that some of your correspondents, from their experience in such matters, might furnish us and others, with many useful hints. j. e. s.

Expense of a Bone Mill.—Thinking from your reply to correspondents in the Country Gentleman of March 12th, in relation thereto, that it might be of interest to some of your readers to know the cost of a good mill for grinding bone, I will give the cost of the one in operation in this city, belonging to Mr. Thomas Coulson, and which is acknowledged by all who have seen it, to be superior in its operation, at least so far as the *quality* of the article produced is concerned, to any in this country. Four pairs of cutters are used. The first two pairs cost, with geering, $300—the last two pairs, without gearing, $600—the necessary belts, elevators, sifters, shafts, pullies, &c., about $200. The first set of cutters have done about ninety days labor, ten hours per day, and are now completely "used up;" the second or last set, have not been in operation so long, but are not expected to perform more than one hundred days labor. To the first cost of all, may safely be added 25 per cent. for repairing, breakages, &c., before they are finally thrown aside. The motive power is a ten horse engine, which with building, built and used only for this purpose, cost $1,500 more. Charles Bell. *Albany, March* 14, 1857.

Bull Terrier.—I can furnish Mr. J. M. Parker with a good bull terrier dog, which has all the qualities of a rat terrier. He has one advantage over other dogs; he will climb a ladder equal to a person, and is a first-rate watch dog. I will warrant him to keep night visitors from intruding. Price $25. A. Van Rensselaer. *Claverack, N. Y.* [The above ought to have appeared as an advertisement; but as others beside Mr. Parker may desire such a dog, we give it a place.]

Seed Planter.—I wish you would inform me through the pages of your paper, which is the best seed drill for planting carrot seed. I want something that I can use by hand or horse, that will drop the seed at equal distances from one another. Is there any kind better than Emery's, and what is the price? F. S. *Lansingville.* [We know of nothing better than Emery's, for horse and hand power—price $14.]

Artificial Stone.—Please permit me to inquire of J. E. S., author of "My Artificial Stone House," in Co. Gent. no. 8, or any of your correspondents, whether that kind of artificial stone wall will do for cellar walls, or would it require to be cemented? Perhaps he or some one else may have tried it. I think by cementing it on the outside, it would make it as good as stone. J. *Iowa City.*

Keeping Poultry.—*E. O. H., Lockport.* You will find in our Annual Register for 1855, plans and descriptions of a Poultry House, which will just answer the purpose. The merits of the different varieties of fowls have been pretty thoroughly discussed in our papers during the past year, to which we must refer you for information on the subject.

Fan Mills and Straw Cutters.—Please inform me, through "The Cultivator," what is the price of fanning mills in New-York city, or Boston,—also, the cost of good straw cutters for hand power. C. D. *Long Point, Nova Scotia.* [The best fanning mills, vary in price from $20 to $27, according to size; straw cutters from $8 to $18, for hand power.]

To Prevent Crows from Pulling Corn. | Crows will not pull corn if pains are taken to sow broadcast a small quantity over the lot—one half bushel of corn soaked 24 hours, and sowed on 10 acres, will not only save time but preserve the crop. James Fuller. *Whitesides Corners, N. Y.*

Dourah Corn.—I send you six seeds which I bought of J. M. McCollough for Chinese Sugar Cane. Is it cane seed or some kind of corn? You will please answer in the Country Gentleman. N. Cox. *Quaker Bottom, O.* [The enclosed seed, is, we think, beyond a doubt, that of the Dourah corn—not that of the Chinese Sugar Cane.]

Thermometers.—*D. D., Broylesville, Tenn.* Your best way to get a thermometer, is to order it through some merchant in your county.

Hartley & Co.'s Corn Planter.—*J. T. P.* We know nothing of this machine.

Pruning Large Grape Vines.—I have an old grape vine nearly three inches in diameter, which has been suffered to go unpruned for several years until the top has become a mass of twisted, dead, and dying vines. A thrifty shoot has started out of the old stock one and a half inches above the surface of the ground, is growing finely, and is now about sixteen feet long. Would it be as safe, or the best plan, to cut off the old stock just above where the young shoot starts out? Please answer through the "Cultivator," and oblige a young farmer. E. R. Newell. *Southington, Ct.* [Old and neglected vines of hardy American grapes, may be converted into young, thrifty and productive ones by severe pruning, which should be done early in spring, or before the swelling of the buds. Large vines may be cut off with safety—enough buds, or a smaller vine, being left to spring up. The grape is remarkable for the severity of the pruning it will endure, simply because it has a remarkable power to produce new shoots.

Ag. Papers—Inquiry.—Most of our farmers say that they cannot afford to take more than one agricultural paper. But many of them do take two or three political papers, that are filled with trash and abuse, &c., that benefits no person or party. I am exceedingly sorry that this is a matter of fact, and I am sure that if they would pay their attention to "book-farming" with the assiduity that they do to political strife, they would possess a much greater practical knowledge of the various branches of good husbandry. If we would acquire the appellation of good farmers, and so pursue the occupation as to make it pleasant and profitable, we must study its theory until we attain a thorough knowledge of all its various branches.

Can you inform me through the "Cultivator," or some of your subscribers, where I could purchase a pair of full blood Wild Turkeys, that are large when they attain their growth? J. G. J. *Elliot Depot, Me.*.

Buckthorn Seed for Hedges.—Will it answer to plant buckthorn seed in the spring, say May next, on new prairie? We left some parsnips out this last winter, and find them all rotten this spring—also the same with Vegetable Oysters—is that a common occurrence? They were in upland prairie. The past winter has been very cold indeed. C. L. D. *Janesville, Wis.* [If Buckthorn seed have been properly kept, and in moist condition, they will sprout quite early, and planting should not be delayed. They will grow well on prairie land, if kept clean and well cultivated, but not otherwise. Parsnips and vegetable oysters usually keep well in the ground where they grew, during the winter. But when the land is much water soaked, and especially when in addition to this condition, they are subjected to severe freezing with but little snow, or a repetition of freezings, it goes hard with them.]

Wanted.—Can you or some of your correspondents inform me where to get Spring Rye, the price per bushel, and how much to sow on the acre? W. *East Hubbardston, Vt.* [We can but think those who have seed grains for sale miss it very much by not advertising them. We are in constant receipt of such inquiries as the above, and very seldom have the means of replying. Not only are actual inquirers thus numerous, but there are hundreds, who if they saw a list of the standard kinds of seed grain advertised by a reliable house, with full particulars as to price, &c., would then make the discovery that they could use some one or more sorts to decided advantage. Who will be first to take the hint?]

Saw-dust and Shavings as Manure.—Are saw-dust, turnings, and planing chips, good for any thing as fertilizers? If so, how is the best way to prepare them, and how long a process is it. W. A. W. [Saw-dust and turnings are of but little value as manure—but their value varies with the kind of wood, and the nature of the soil. On light soils, woods which decay soon, operate nearly as leaf mould. On heavy soils, undecaying woods tend to render the soil looser. Saw-dust, well dried, from quickly decaying wood, answers a good purpose in mixture with manure as an absorbent of liquid.]

Chinese Sugar Cane.—There has of late been considerable inquiry as to the quantity of seed it will take to plant an acre, and as I have within a short time been able to inform myself in regard to the subject, I will now present it to the public, hoping that some may be benefitted thereby. To plant an acre 2 by 3 feet apart, and six seeds in a hill, it will take nearly 2 lbs., or 2 qts. and 388 seeds, as there are 10,793 seeds in a pint or 7 ounces of seed. To plant ten seeds in a hill, it will take 3 qts. and 7,842 seeds, or 3 lbs. to the acre. S. H. C.

Double White Spiræa.—Would you inform me through the columns of your paper whether the Double Flowering Spiræa prunifolia is a perennial or biennial; and whether propagated from seed or bulb; also whether I could procure the seed or bulb in Albany. W. E. M. Livingston. *Utica, Mo., March*, 11, 1857. [It is a small hardy shrub, and may be rapidly propagated by layers, by burying the middle portion of the young newly formed shoots before midsummer. It may be procured of any good nurseryman.

Butter-Making.—There are a few questions in regard to butter-making, which I would like to ask you, and receive information through the Country Gentleman. Which is most profitable, as regards the quantity and quality of the butter, to churn the cream or all the milk? How long should the milk stand in pans before skimming? At what age are cows most profitable for making butter? Answers to these questions from any one who can speak from experience, will oblige A Subscriber. *Meredith, N. Y.*

Origin of the Carter Potato.—I notice in the Country Gentleman for the 15th Jan. last, an inquiry as to the history of the Carter potato. If I am not very much mistaken, they were originated by the late Judge McCarty, of the town of Westerlo, in the county of Albany, some years since. Satisfactory information on this point, may be obtained from Blodget Shears, of Coeymans Hollow. G. W. Durant. *Rensselaerville.* [We shall be pleased to hear from Mr. Shears on the subject.]

Mice-Girdled Trees.—In the Country Gentleman I find an inquiry for a remedy to prevent mice from girdling trees. I will give you my remedy, which so far, I have never known to fail. Remove all grass and weeds from around the trunk or body of the trees, and place leached ashes to the depth of two or three inches around the trees. This will prove a benefit to the growth as well as a preventive from mice-girdling. Who ever knew mice to work in ashes? L. H. *Vernon, Ohio.*

Stretches—I wish to say to you that your remedy for stretches in sheep is an infallible one. I cured upwards of thirty in the winter of '56, by the same remedy, and never lost one taken with it—many of my neighbors losing from ten to forty that I was knowing to. Not one of them, though, could afford or be persuaded to take an agricultural paper. I then resided in Wayne county, Michigan. A. T. C.

Warts.—I have a very fine mare that has a wart on her leg close to the hoof. It has been cut off, but has grown out. It is very large, and is a running sore. I would take it as a great favor to find out what would cure it. R. W. *Woodford Co., Ky.*

Market Gardening.—*B. F. S., Iowa.* Buist's "Kitchen Gardener," (price 75 cents,) and Schenck's "Gardener's Text Book," (50 cents,) are both good. Your other inquiries we cannot answer.

AMERICAN PLANTS.—MESSRS. EDITORS—Will you please to inform us through the columns of the Cultivator, what work gives the most full description of American plants. Botany is a branch of science which should be cultivated by the American farmer to a greater extent than at present it seems to be. I make this inquiry from the fact that I wish to investigate the subject now, as the proper season for the study is at hand. Will you please to state also, where the work can be obtained, and the price. A READER. *New Ross P. O., Mont'y Co., Indiana.*

[The best single work is the new edition of Gray's *Manual of Botany of the Northern United States,* including Virginia, Kentucky, and all east of the Mississippi—a small octavo volume of over 700 pages, with many plates of the ferns and mosses. This volume will be sent postage free to our correspondent, by G. P. Putnam & Co., publishers, 321 Broadway, New-York, on receiving from him two dollars and fifty cents, the price.

Gray's *Introduction to Botany,* with several hundred cuts, a most interesting and valuable treatise ,will be sent by the same publishers, for one dollar and fifty cents. Or, the cheaper *Manual,* (without the ferns and mosses) and *First Lessons in Botany,* bound in one volume, for two dollars.]

LIMA BEAN.—Messrs. Editors—Will you or some of your correspondents inform me, through the columns of the "Cultivator," if the "Lima Bean" is grown to any extent in the east, by gardeners or others, for "*pickling in the pod*;" and if not much used in this way, in what state are they sold—green or dry, shelled or in the pod, and at what prices? A reply will much oblige A. B. *Anna, Ill.* [The Lima Bean is much cultivated in the northern and eastern states, on a small scale, for the table—the beans are shelled *when green,* and used only shelled. We have never known it used for pickling. The seed must be sown very early, on very rich warm soil, and the plants be well cultivated, in order to furnish crops, the seasons here being rather short for this bean. The seed is furnished by nearly all seed stores, at moderate prices,—the exact rate we do not remember.]

PRODUCTIVE APPLE TREES.—What kind of apple trees of winter fruit, are the best bearers, in your estimation, and come soonest to bearing, and flourish best in our county, on a dry warm soil? S. W. R. *Greene Co., N. Y.* [For early, and great and continued bearing, the *Baldwin* will probably stand first—five or six-year trees often affording three or four bushels of fruit, and old trees sometimes yielding forty or fifty bushels. Next to the Baldwin, stands the *Jonathan,*—a most excellent and very handsome apple, but rather small in size. The *Rhode Island Greening,* and *Tompkins County King,* are also great bearers, but do not give such early crops as the Baldwin or Jonathan.]

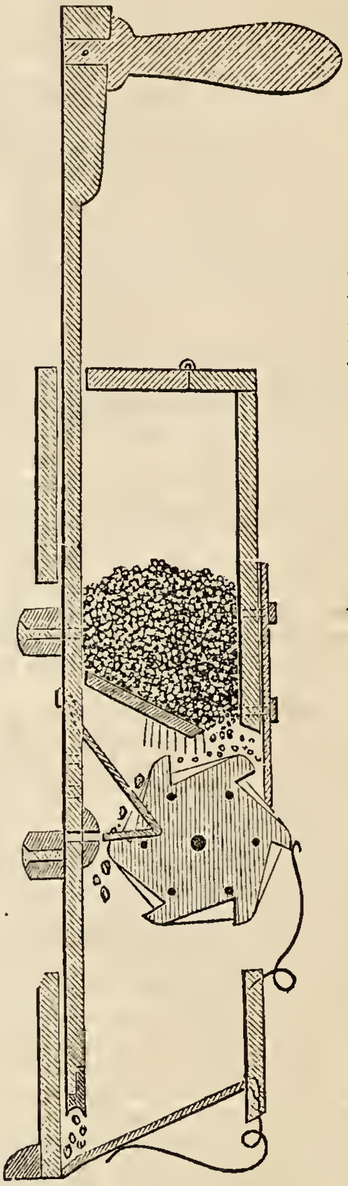
PINE LANDS.—LUTHER TUCKER & SON—To what extent can pine lands that have a substratum of clay be improved, and to what value can such lands be brought to per acre, in a location as favorable to the price of produce as the neighborhood of Albany? I would propound the same questions in respect to other pine lands, which have not the advantage of clay subsoil. I should like to know what is the most direct way to improve such lands, economy and durability to be considered. N. P. A. *Ohio Co., Va., April,* 1857. [We should esteem it a favor if some of our correspondents who have had ample experience, would answer the above.]

EDS. CULTIVATOR—I want some information in relation to raising peanuts. Do the blooms have to be covered up or not? Please answer in your next Cultivator. R. *Carbondale, Illinois.* [Will some of our correspondents be good enough to reply.]

CANADA CLUB SPRING WHEAT.—*J. B.* This wheat is not to be had in this city.

New Hand Seed Planter.

PATENTED SEPT. 9, 1856.



In most of the hand corn-planters, the grain is taken from the seed box by means of a float slide, which has slats or pockets in its surface. In the machine here illustrated, a *many-sided wheel* is employed instead of the slide. The periphery of the wheel is notched at intervals, so as to form pockets, which receive the seed. By the revolution of the wheel, the seed contained in said pockets is discharged, and falls to the lower part of the machine below the plunger, upon a plate that is hinged to the lower end of the machine, which is kept closed except at the moment of planting.

In planting, the operator places in the lower extremity of the instrument upon the ground, and pushes down the plunger by means of its handle. In its downward movement, the plunger opens the plate (on the lower end of the tube,) and forces the seed which had previously fallen into the space below the extremity of the plunger, into the ground. By lifting on the handle, the plunger is withdrawn and the plate again closes; by stops on the plunger, which work in a slat on the front of the seed tube, it is readily set to plant any desired depth.

The *Scientific American* speaks of the invention as follows: "This planter is extremely simple in all of its parts, durable, and not liable to get out of order. It is adapted to the planting of corn, cotton seed, pumpkin seed, either mixed or not with corn, and to all other kinds of seeds that require to be deposited in hills. The construction of the machine is such that it cannot clog up, no matter what kind of seed is to be planted. It works equally well whether the ground be dry or moist. We regard it as an excellent improvement." For further information address the inventor, HEMAN B. HAMMON, *Bristolville, Trumbull Co., O.*

BEECHWHEAT.—Webster says "Buckwheat (a corruption of Beechwheat,)" and it got its name from the perfect resemblance it has to the beechnut. The German word is Buchweitzen, and being an anti *Buck* man I would not call it by its *corrupt* name. Call things by their right names—Rams are now Bucks—Asses, Donkeys, and Cocks, Roosters. W. C. H.

Notes for the Month.

Award of Premiums for 1857.

The time allowed for competition for the prizes offered for subscriptions to our papers, having expired April 10th, we take pleasure in announcing the following awards:

1.	I. W. BRIGGS, Wayne Co.,	for $285.86	$50
2.	HIRAM MILLS, Lewis Co.,	155.11	45
3.	E. BENEDICT, Clinton Co.,	96.74	40
4.	J. R. HOWARD, Massachusetts,	88.76	35
5.	J. H. BOYD, Washington Co.,	79.75	30
6.	GEO. HAMILTON, Nova Scotia,	75.00	25
7.	JOS. A. HUMPHREYS, Kentucky,	59.00	20
8.	H. SHEPPARD, New-Jersey,	48.98	15
9.	SUEL FOSTER, Iowa,	48.50	10
10.	J. L. DARLINGTON, Penn., P. STEDMAN, Mass., A. CARY, Montgomery Co., C. F. WEBSTER, Sr., Indiana, A. S. MOSS, Chautauque Co.,	Each $5 in Agricultural Books.	

In addition to the above our offer embraced the following list of Specific Premiums:—

For $20 sent for Subscriptions to either or both our journals, an extra copy of the COUNTRY GENTLEMAN for one year to the Agent, and any $1.00 or $1.25 book on Saxton's List of Agricultural Publications, provided no other Premium be taken.

For $30—THE COUNTRY GENTLEMAN and TWO DOLLARS in Books, as above, provided no other Premium be taken.

For $40—THE COUNTRY GENTLEMAN and THREE DOLLARS in Books, as above, with the same proviso.

As in many cases these premiums have been already delivered, and as the list of those entitled to them is so long, we have thought it best in the present crowded state of our columns to omit its publication. Those who have not yet claimed the books to which their remittances entitle them, will please inform us what ones they select, and the volumes shall be immediately furnished. Where they are to go by mail, stamps should be sent to prepay postage, which is generally 12 or 15 cents on a dollar book.

We need not add that we feel personally obliged to all competitors, successful or unsuccessful, for their kind efforts to enlarge and extend the influence of our Journals. We are sure they will be glad to know that our circulation was never in a more satisfactory or thriving condition. We are already looking forward to new exertions for the benefit of our readers, and shall relax no effort to maintain and advance the high character which the COUNTRY GENTLEMAN and THE CULTIVATOR are intended to support. This is especially *our* care, while that of seeking new readers and subscribers necessarily rests in a great degree with our friends. In thanking them once more for having done so much, we can but express the hope that they will continue zealous in the good work.

U. S. AG. SOCIETY'S EXECUTIVE MEETING AT LOUISVILLE.—At the recent session of the Executive Committee of the U. S. Ag. Society at Louisville, Ky., Hon. James Guthrie, Thomas H. Hunt, J. B. O'Bannon, B. J. Adams, Will. Watkins, and Isaac Everett were appointed to constitute the local committee in connection with Messrs. Gibson Mallory, and Edward D. Hobbs, *ex-officio* members; L. A. Whitely was appointed Assistant Secretary, and Arthur Peter Assistant Treasurer. The exhibition is to commence on Tuesday, September 1st, and continue five days. Extensive improvements have been planned upon the grounds of the South-Western Association, on which it is to be held, comprising additional stables and other requisite buildings. It is unnecessary to add that every Kentuckian will feel a personal interest in the success of the Exhibition, and that no state possesses more energetic, openhearted and public-spirited friends of the cause of Agriculture.

EXPERIMENTS PROPOSED.—No one interested in the respective merits of different breeds of cattle, and no one who has read the late discussion on the subject in the Co. GENT. can fail to be pleased with the stand taken this week by our correspondent Mr. BUSH. It will be seen that he proposes a trial, which, if carried on as it might easily be, with fairness, care, and very little trouble or expense in proportion to the importance of its results,—would be of more value to the Agricultural community than the mere examination of show-animals could ever be, however carefully their hides were "felt," and their "points" scaled and adjusted. We have never been able to determine how the farmer, who would make his farm the source of livelihood and profit, should undertake himself to maintain a herd of pure-breds, and we have always advised that it be left to breeders, as a business more or less entirely distinct, to supply him with such males as would be best suited to raise the standard of his cattle by degrees, according to his locality and wants. Hence, as we have frequently said, it is of the utmost importance to give each breed a fair hearing, to learn its peculiar merits and demerits, and its power of influencing its progeny; and we should be inclined to anticipate no little good from experiments tending to elicit facts bearing on these points, and to set at rest questions so long mooted for want of them. We hope Mr. B.'s propositions will not remain unaccepted.

THE "HIGHEST-PRICED SALE" ON RECORD.—The following letter from Col. MORRIS is an authoritative announcement of the facts mentioned in our note of last month:—

MESSRS. LUTHER TUCKER & SON,
Editors of "The Country Gentleman:"

DEAR SIRS—It is with mingled feelings of *pleasure* and *regret* that I announce that I am no longer a Short-horn breeder. My residence being permanently fixed at Mount Fordham, it was impossible to carry on very pleasantly the occupation at Herdsdale (12 miles distant,) and the only *regret* I feel (independent of my pleasure with the animals) is that I shall disappoint those who wanted a few of them, and lose to a certain extent a continuance of the numerous and pleasant acquaintance which I have formed. Having purchased the entire herd of the late Mr. BECAR, and prepared the manuscript for my Catalogue of 1857, I was solicited by Mr. THORNE of Thornedale, to let him look at it previous to its going to press, which resulted in the highest priced sale ever made in this country or England, *not excepting* those of the Collings and Earl Ducie.

The *pleasure* I feel is that so many valuable strains of blood are now to be united on one farm, and if judiciously managed (which I have no doubt they will be,) more good will be secured to the country at large, by keeping them together for a term of years longer, than if they were now distributed far and wide.

I have wound up my career as a breeder, with a reasonable pecuniary profit, and a synopsis of the sale will be published shortly.

With many thanks for the liberal support of the community for years, and their frequent expressions of confidence in my having done some good, which I hope and believe will be realized, as the seeds or strains of blood of various kinds of animals so diffused, will continue to yield a profitable return to the country, I remain yours, with great respect and esteem, L. G. MORRIS. *Mount Fordham, March*, 1857.

SALES FROM THE THORNEDALE HERDS.—We learn by a gentleman who was at Thornedale last week, that Mr. THORNE has recently sold nine head of very choice Short-Horns to BRUTUS J. CLAY of Kentucky, Messrs. HAINES of New-Jersey, Mr. E. MARKS of Onondaga county, and Mr. J. R. PAGE of Cayuga county. The prices of these animals varied from $500 to $1,500 each.

BLACK HAWK COLT IN MASSACHUSETTS.—We learn from the Massachusetts press, that among many colts there from "Black Hawk, Jr.," owned by JOHN A. HEMINGWAY of Suffield, Conn., one in Chester, Hampden County, Mass., raised by DANIEL B. HOLCOMB, is attracting extensive notice. He was foaled on the 12th May last, and now stands fourteen hands high—girts 60 inches—weighs 720 lbs.—is black as a crow's wing, and in form and action almost a perfect model. His dam is six years old—a large, racking bay mare of great speed, and weighs 1224 lbs. Mr. Holcomb has had liberal offers for his colt, but refuses anything less than $1000. Can this colt be beaten? What say you, farmers of Vermont, and the Empire State? W.

Massachusetts State Fair.—At the recently quarterly meeting of the Massachusetts Board of Agriculture, the committee of arrangements reported progress relative to the preparations for holding a State show and fair in the fall. Col. Wilder, chairman of the aforesaid committee, referred the matter of fixing the place and time to the members at this meeting. After a mutual conference, it was unanimously decided to hold the fair in Boston, provided the Agricultural Grounds—where the National show convened two years ago—can be obtained, and a sufficient guarantee fund can be secured. The time fixed upon is the 20th, 21st, 22d, and 23d days of October.

The following list of officers were appointed by the Board to take charge of and make all necessary arrangements for the exhibition: President—Marshall P. Wilder of Dorchester. Secretary—Charles L. Flint of Boston. Treasurer—Wm. G. Lewis of Framingham. Committee of Arrangements—Marshall P. Wilder of Dorchester; Samuel Chandler of Lexington; John Brooks of Princeton; George Marston of Barnstable; Wm. G. Lewis of Framingham; Moses Newell of West Newbury; Thomas J. Field of Northfield.

New-York Agricultural College.—At a meeting of the Trustees at the State Agricultural Rooms, March 18th,

Present—Gov. King, Chairman; Hons. Saml. Cheever, President College, Wm. Kelley, J. B. Williams, A. G. Post, Rev. Amos Brown, B. P. Johnson.

After reading and approving the minutes of preceding meeting, Gov. King was re-elected Chairman of the Board of Trustees for the ensuing year.

The following gentlemen were elected additional Trustees:—Rufus K. Delafield, Esq., New-York; E. P. Prentice, Esq., Albany; Maj. M. R. Patrick, Sacketts Harbor; Alexander Thompson, M. D., Aurora, Cayuga Co.; Arad Joy, Esq., Ovid, Seneca Co.; Hon. Addison Gardner, Rochester; Hon. G. W. Patterson, Westfield, Chautauque Co.

The Trustees had before them and examined the several plans submitted for the College buildings, and it is probable a decision will be made within a short time, and the building commenced without delay.

The Northwestern Fruit-Growers' Association at their last session, held at Burlington, Iowa, resolved to hold their next session at Milwaukee, Wis., commencing on Tuesday, September 29th, 1857. Owing to the severe weather of the past winter, it is feared that there will be a failure of fruit in that locality, and the President of the Association has given notice that the meeting will be held at Alton, Ill., at the time above mentioned.

State Fairs.—Connecticut is to hold its State Fair for this year at Bridgport, the inducements offered by its citizens being "$2,000 in cash, grounds for a race-course, mounted marshals, police," &c. The Illinois State Fair is to be held at Peoria, commencing 21st September.

Penn. State Ag. Society.—The Executive Committee of the Penn. State Ag. Society have decided on the 29th and 30th days of September, and the 1st and 2d days of October next as the time for the next annual exhibition. The place is yet to be chosen.

The Iowa State Fair is to be held this year at Muscatine, Oct. 6.

Sale of Bulls.—I would notice the sale of the young thorough-bred Short-Horn bull "Sultan." He was bred by Francis M. Rotch, Esq., of Morris, Otsego Co., and sold to Joseph Juliand, 2d, of Bainbridge, Chenango Co. The inhabitants of the town of Bainbridge are indebted to the energy and enterprise of Messrs. Juliand and Banks, for securing to their use the services of such pure-bred animals as the Short-Horn "Sultan," and the Devon bull "Metropolitan," now the property of John Banks, bred and sold by R. H. Van Rensselaer of Otsego Co.

Devons.—For the encouragement of Devon breeders, I will say that I sold a half brother to Winchester to Pennsylvania, that weighed 1,100 lbs at 19 months, and had not been pushed. He took the first premium at our last State Fair. Messrs. Hurlbut's last importation has produced a marked improvement on the Devons of our state. L. A. Brown.

Outrageous Cruelty to Animals.—An instance of criminal and outrageous cruelty to two dumb beasts, occurred on Monday, March 30th. Two sporting characters, Andrew Dalton of Albany, and Samuel H. Taylor of New-York, started from the Exchange, at Albany, at 5 o'clock, A. M., for a hundred mile race, without rest or food, on a wager of $2,500 a side. Whitesboro, Oneida Co., was the terminus of the course. They both accomplished the race, Taylor's horse in twelve hours and a half, Dalton's being about a quarter of a mile behind. Such cruelty as this is deserving of the severest condemnation—it is brutal and should be frowned upon in any community that is not made up of barbarians.—Exchange.

We are glad to see the uniform terms of disapproval with which the press generally have stigmatized the above. It is one of those "marks of progress" on which some of our sporting papers are fond of congratulating the country as forerunners of an approaching millenium, in which the horse is to rule supreme in society as well as at agricultural shows. It is one of those steps in the "improvement of the horse," which its opponents are so "prejudiced" and "interested" as to disbelieve in and seek to limit. It it is one of the first fruits of the love for fast animals, already too rampant among us, but which, as we are told, needs to be still further "educated" through every influence that can be exerted by Fairs and Premiums and rings and matches. It is a result of the "course" and its concomitants, of which it is no defence to say that this happened outside of rule and precedent, for it only occurred in direct obedience to the taste they create and diffuse among us. Could skeptics as to the impropriety of thus degrading and abusing this noble animal, have seen the drunken crowds around our telegraph offices, hazarding their money, as the tidings seemed to favor one side or the other, they might have been convinced that the love of speed does not require the use of our Agricultural organizations to strengthen it, and that the danger which some have foreseen in the attempt, to the character and morals of those witnessing it, may not altogether arise from puritanical scruples, or an intense admiration of short-horns and swine.

The Farmer: an Agricultural Magazine for New-Brunswick, Nova Scotia and Prince Edward's Island."—This is the title of a 16 page monthly, just commenced at St. John, N. B. It is published by Wm. Bellingham, at 75 cents a year. This is, we believe, the first effort to establish an agricultural journal in these Provinces; and if the farmers of these parts of her Majesty's dominions understand their own interests, they will render it a hearty support, which we doubt not, judging from the first number, it will richly deserve. The stock department is to be conducted by our correspondent, Dr. M. A. Cuming, a Veterinary Surgeon of high rank, with a comprehensive knowledge of all matters pertaining to the breeding and rearing of stock.

Trial of Mowers.—The Skeneateles Farmers' Club—one of the most efficient Town Ag. Societies in the country, give notice that they will have an exhibition and trial of Mowing Machines on or about the first of July, as near the Railroad Depot as circumstances will admit, when every facility will be given to all who wish to exhibit the qualities of their Machines. Capable and disinterested Judges will be appointed on the day of the exhibition to decide on the merits of the different Mowers. No effort will be spared on the part of the Committee of Arrangements to give the fullest opportunity to all to fairly exhibit the working qualities of their respective Machines. The Committee desire all who wish to exhibit Machines, to give as early a notice of their intentions as soon as possible, so that suitable arrangements can be made for all. Any communications addressed to J. C. Brown, S. P. Rhoades, or W. P. Giles, Skaneateles, N. Y., the Superintending Committee, will receive prompt attention and answers if necessary, and notice of the time of trial will be furnished by mail to all manufacturers who signify an intention of exhibiting.

Board Fence.—A gentleman a few days ago showed me a fence, which, by the aid of frost and water, was pretty well raised up. I told him of a remedy that was given to me by an old and practical farmer, and which I have tried enough myself to know it to be a sure remedy, especially in our wet clay soil. In making a board fence, nail the lower board so that there will be two or three inches between it and the ground; then throw up on *each* side dirt enough to reach to the bottom of the board, leaving a little trench on each side, which carries off the water sufficiently. There are a great many fences made here, leaving off the bottom board and banking up a foot or more. I prefer the first mode, as an industrious man can do a great many rods in a day, and the latter costs more than the bottom board. Ad. *Union Spa.*

Frey's Plow.—I have been to Springfield, to examine Jesse Frey's new Anti-friction Carriage Plow for breaking prairie. With four horses or mules, it is calculated to break three to five acres prairie a day. It runs on four wheels, and the driver sits up on an elevated seat, and drives his horses like a stage team. You can take a friend, or your wife or children around with you, and be quite at ease. With Mr. Hussey's Steam Plow, this will be a great invention for the west. I expect Mr. Frey here this week with one of his plows H. H. *Tacusah, Ill.*

Productive Potato.—Last season I planted two potatoes weighing one pound each. I cut them in seventeen pieces—planted four inches deep, *without* manure of any description—dug them after the first frost, and gathered 226 pounds. They are the ordinary kind raised here—a smooth, round red potato. B. *Humboldt Bay, Cal.*

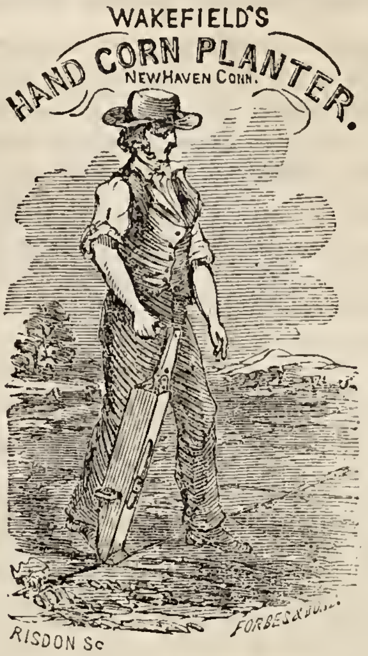
Louisiana Sugar Cane in Illinois.—The sun shines now, and the plows are going. We have a few acres broken up, and on the 29th of March planted some Louisiana Sugar Cane. It is an experiment, but we may make it a successful one. H. H. *Tacusah, Ill.*

To Inquirers.—Correspondents who write us for information, would do well in all cases, to furnish us their address, as in some cases we could send them a paper containing the information desired, and in others we might prefer to answer by letter.

☞ Those of our friends who are bound "for the West," whether singly or in companies, would do well to read the advertisement of the Illinois Central Railroad Company, who offer great inducements to the purchasers of their lands.

Feeding as a source of Manure.—Tell the farmers of Western New-York never to think of guano. Better feed oil cake and corn than buy guano or any other fertilizer. John Johnston.

Hard Soap.—Will I be asking too much to be informed in your paper, the best way of making hard soap? How much grease for a gallon of lye, and how much salt? N. D. *Bathurst, N. B.*



The above is a representation of "Wakefield's Hand Corn Planter," which has been very extensively used in different parts of the country for two or three years past, with so far as we know, entire satisfaction and success. It is very highly recommended by multitudes who have used it, and are we assured that with it one man may easily plant five or six acres of corn per day. C. Wakefield, New-Haven, Conn., is the Patentee and Manufacturer—Emery Brothers are the Agents for this city—price $5.

Fruit in Western Michigan.

Messrs. Editors—Do you think the Catawba grape would succeed in 43.2° N. L.? If so, where can the cuttings and plants be obtained? I would mention that the location is highly favorable for so high a latitude, it being five miles from the shore of Lake Michigan, and the soil is a rich, light loam, (sandy.) (1)

Will the low bush cranberry succeed on dry land? (2)

Perhaps I should mention that frosts do not appear here *generally* until the middle or latter part of October.

The Isabella Grape succeeds well here. Is there any *good wine grape* that will *probably* do better in this climate than the Catawba. (3.)

Will you have the kindness to indicate what other Horticultural and Agricultural Journal will best suit my wants? (4) D. G. Weare, Jr. *Pentwater, Mich.*

(1.) The Catawba grape would probably ripen *well* only in the most favored exposures, and in favorable seasons. It could not be relied on for regular well matured crops, so far north. The plants are sold by all established nurserymen.

(2.) There is an upland variety advertised by cranberry raisers, said to succeed well on upland, if planted on a soil of peaty character, covered with a few inches of clear sand. We have no experience with them, however.

(3.) We have no practical knowledge of wine-making. We are informed that good wine has been made from the Clinton grape, a very hardy and rapidly growing variety, ripening early.

(4) Our correspondent will find the *Prairie Farmer*, published weekly by J. S. Wright of Chicago, and the *Michigan Farmer*, monthly, at Detroit, by R. F. Johnstone, excellent agricultural journals; and the *Horticulturist*, published by R. P. Smith of Philadelphia, in the form of a monthly magazine, an equally excellent horticultural work.

Sheep Feeding—Making Manure.

Having had an opportunity of examining a very superior lot of fat sheep, consisting of 441 head, fed by our correspondent, Mr. JOHN JOHNSTON, near Geneva, at the slaughter-yard of Mr. Roger McGoun of this city, we addressed a note to Mr. Johnston—asking information in relation to the sheep, which were evidently bought in from wool-growers for the purpose of feeding—how long they were fed, the manner of feeding, the profit derived from it, &c., to which Mr. J. promptly replied as follows:

NEAR GENEVA, April 5th, 1857.

MESSRS. L. TUCKER & SON—Your favor of the 2d was received, and I was pleased that you had seen my 441 fat sheep that went to your city, and will endeavor to answer your inquiries about feeding.

My sheep were bought in Sept., Oct. and Nov. I commenced putting them in yards on the 28th of Nov., and fed as follows:—One bushel of oil-cake meal to each 100 sheep, in the morning, and one bushel corn in the evening. The meal weighs 50 lbs. per bushel; of course each sheep had half a pound of cake meal. Corn weighs from 60 to 62 lbs. per bushel, therefore they had over half a pound each of corn per day, with straw for fodder.

I fed this way for forty-nine days, but thinking my sheep were not doing as well as I expected, I discontinued the corn, and gave half a pound of cake meal in its place, and from that time they had one pound of cake meal each, with all the straw from racks they could consume, and large quantities were spread over the yard when needed.

On the 20th Feb. I commenced feeding half my flock excellent clover hay, and in a few days after reduced their allowance of cake meal to half a pound each per day. On the 1st March I put the other half on hay, and in a few days after I reduced their allowance of cake to half a pound each per day, and fed them in that way until 1st of the present month, when I sold them.

You inquire the age and breed. It is difficult to tell the breed of a great many of either men or beasts in this country, they being a mixture from all nations. Fifty of them were a cross from the Merino and South-Down, mostly two-year-olds this spring. They feed very well indeed for their age. I had forty three-year-old sheep, that had a decided dash of the French Merino blood in them; they were large sheep, but rather lean when I got them, but I never saw sheep feed so well. They got very fat indeed. I had a few Leicesters; those in good condition when I got them, did very well; those that were thin when I got them, did not get good fat.

I have yet 59 of my 500 sheep, some 40 or more of which had lambs a month and more. The lambs and dry sheep I shall sell in May or early in June.

By 1st of May, the 500 sheep will have consumed 22 tons and 814 lbs. oil-cake (linseed cake) meal, and 261 bushels corn; and one-half had clover hay thirty-nine days, and the other half, thirty-one days.

I also fed 30 young Leicester sheep; but they are fed by themselves, and not from the same meal.

Sheep were high to purchase last autumn, and I have only got fairly paid for what they consumed.

You request me to estimate the value of the manure made from my sheep. That is always a difficult matter, as I think good manure almost invaluable. For many years after I came here, I applied the manure directly to my wheat at sowing time in Sept. I then considered that the manured land brought me $10 worth more wheat per acre than the unmanured, and that was when wheat was from 87½ cents to $1 per bushel. I know I have enough of manure from the sheep to do forty acres if applied to the surface for wheat in the fall. That would make the manure worth $400 for one crop; or if I apply it to twenty acres for Indian corn, I may safely calculate on from 15 to 20 bushels more per acre on account of the manure; and then the land would require no more manure for eight or ten years. It is wonderful what effect such manure has on such land. I have been making rich manure for over thirty years; and that is the best Agricultural Chemistry—better than all the doctor's stuff ever invented, to raise either grain or grass, especially if the manure is applied to the surface.

Could not you induce some 500 farmers to make experiments in that way, and give the result through the agricultural papers? I know many that apply their manure to the surface as I do, but they won't write for a paper on any account.

I may mention that I never could succeed in fatting sheep on Indian corn alone and straw. If I fed them enough corn to fat them, a good many died by a rush of blood to the head; they drop down and are instantly dead. I have done well with two-thirds oats and one-third corn, or half corn and half buckwheat, with straw—I mean by measure in both. I have now fed oil cake meal for many years. I commenced when I got it for $7 per ton. I now pay a little over $28 per ton. It is excellent for either sheep or cattle, but if I had hay enough should feed corn to sheep when corn was lowest per bushel—and feed only about half a pound per sheep per day. I made many excellent fat sheep twenty-five and thirty years ago, on hay and a bushel of corn to 100 sheep per day. I often at those times, bought from 15 to 40 tons of hay when low, and fed it all besides what I made, to sheep, and I always got paid besides the manure, with the exception of one year, (1842)

I would not advise any man to go largely into fattening stock until he learns gradually by experience, but I would advise him to keep what he does keep much better. It is a perfect disgrace to see the miserably poor sheep and cattle throughout the country? *Where are the agricultural societies?* Yours truly, JOHN JOHNSTON.

It will be seen from the above, that our correspondent finds the profit of feeding to consist mainly in the manure thus obtained. How high an estimate his experience has taught him to place upon profit of this kind, he also tells us, and no one who has made similar trials will accuse him of overrating it. By this means, above all others, are the fertility and productiveness of our soils to be fully maintained, and those of our worn-out and poor lands to be promoted and increased. It may be entered upon by degrees and at little risk while it can scarcely fail in the end to add wonderfully to the pecuniary returns of farming We hope with Mr. Johnston, that hundreds may be induced for their own sake, to try this kind of "practical Agricultural Chemistry.—EDS.

Quantity of Seed Per Acre.

MESSRS. TUCKER & SON—How shall we ascertain the proper quantity of seed to sow per acre, in order to obtain the greatest yield of grain, except by experiment?

Last spring, having a field of eight acres of very uniform soil, upon which I wished to sow oats, I resolved to try what effect an increased quantity of seed would have upon the crop. Accordingly I sowed upon four acres 2½ bushels, and upon the other four, 3½ bushels per acre. The least quantity of seed gave a yield of 192½ bushels; and the larger, gave 199 bushels, by measure—a trifling difference by weight; the latter exceeded the former two lbs. per bushel, weighing 31 lbs. to 29 lbs. per bushel.

This was upon ground which had not been manured for the last six years—had raised a crop of barley and one of corn previous to the oats.

The difference in the weight of the crop is something which I cannot account for with satisfaction to my own mind, as the seed was of the same kind—the ground plowed of a uniform depth. and all sowed and harrowed in on the same day. I should be glad to hear the opinion of the "Country Gentleman," or some of his readers, upon the subject. D. C. *Lansingville, Tomp. Co. N. Y.*

The Wheat Crop in Illinois.

The season though late is probably far enough advanced to enable farmers to judge pretty correctly of the state of the wheat crop. The amount of damage done by winter killing, has been largely overrated, and if the crop now on the ground escapes the fly, blight, rust and the worm, to neither of which evils has winter wheat been subject to any considerable extent in Illinois, the yield of 1857 is likely to exceed that of 1856 by 20 or 25 per cent.

Wheat sown on raw prairie and old ground both, and well put in by the 10th of September, though very backward, bears unmistakable signs of health and vigor, in three-fourths of the counties of this State. In the counties lying along and between the Illinois River and the Mississippi, a portion of the State known as "Military Tract," not sufficient rain fell from the 25th of August to late in October to effectually bring up the seed. This was true also of some counties lying along the east bank of the Illinois river, south of the centre of the State. Nevertheless the crop in all this region is by no means less than half an annual average.

In the northern portion of the state, and over the large area lying east of the Illinois River and extending south as far as the line of the Terre Haute and Alton Railroad, the wheat crop promises now to come up to an annual average of five years. The line of the Terre Haute and Alton Railroad runs upon an east and west ridge, that extends pretty nearly across the state. Generally, the black, deep, loamy soil of the middle and northern portions of the state, does not extend south of this line, and the transition from a deep, black mould, to a yellow clayey, calcareous soil, is sudden and marked. South of this line the wheat is in excellent condition, grows better as one goes South, and is very fine in the timbered country south of the Big Muddy River.

I conclude, after comparing notes with gentlemen from different portions of the state, that the area sown for the crop of 1857, exceeds that for the crop of 1856 40 per cent. The increase is indeed immense, and though the probable average yield per acre this year will fall considerably below that of last, the increased breadth sown will yield a crop one quarter larger in 1857 than in 1856.

The success of the wheat crop in Illinois lies almost entirely with the farmer. Deep plowing, early and liberal seeding and good and careful cultivation will insure remunerating returns in every portion of the State, and though the southern part has a soil more naturally adapted to wheat, it is doubtful, taking prices, markets and the facility with which the soil is cultivated into account, whether the northern and central counties do not have the advantage in wheat growing.

I repeat the season is very backward and farmers have scarcely commenced work. We had a fall of five or six inches of snow Sunday the 5th; Monday was as cold as February, last night was a regular winter one, but to-day it is warmer, and now, at 5 o'clock P. M., the snow has nearly disappeared.

Fruit buds in this vicinity (very nearly on the parallel of 40° north, and 129 miles south of Chicago,) have scarcely started, and the prairies are nearly as black as in February—but we apprehend no damage to fruit or vegetation from the recent unusually cold snap.

South of the Big Muddy river the peach trees were in blossom last week, and the apples trees had begun to bloom, and in this region the fruit crop must have suffered severely. B. F. J. *West Urbana, Champaign Co., Illinois.*

Tartar or Chinese Sheep.

MESSRS. EDITORS—In the March no. of THE CULTIVATOR, there is a notice that I have some of the Tartar sheep. Since that notice I have received several letters of inquiry about them. Perhaps there are others who would like to know of the sheep, and I take this method of giving such information as I have.

They appear to be a very hardy sheep, and also very quiet and peaceable, not having a disposition to ramble. Their wool is rather coarse and strong, the kind used in the manufacture of carpets, horse blankets, &c. Their flesh is said to be superior to any thing in the mutton line, being entirely free from that strong sheepy taste of other varieties. They will compare favorably with the Bakewells for size. They are remarkable for their breeding qualities, breeding twice in the year.

It is not a year since I received them—three ewes and a buck—and I have now seven lambs, and I confidently expect another crop the present month.

Should their mutton prove as good as represented together with their rapid increase, they will prove a valuable acquisition to the country.

As soon as I have any to spare I shall be pleased to supply any who may wish to try them. JOHN HOLMES. *Burnt Hills, N. Y.*

Guano for Oats.

A correspondent of the Country Gentleman recently inquired whether guano would pay on oats, and was told in reply that it would pay in the quantity of 300 lbs. to the acre. Now if this be true in your country, it is very far from being true here. I have large experience in the use of guano on corn, oats, wheat, potatoes, buckwheat, &c., &c., and I feel authorised to give an opinion about it. If by guano your correspondent means Peruvian guano, which is the only kind I recognize as manure, I can assure him that if he shall apply 300 lbs. to the acre, and sow in oats, he will lose his money. His oats will grow up gloriously rank, and fall down, forming a thick mat upon the ground, which will suffocate all the young grass under it. In poor land, 100 lbs. of guano to the acre will bring more oats than three hundred will. In stiff lands, quite poor, perhaps two hundred pounds might not be too much; except on lands too poor to produce fifteen bushels of oats to the acre, I doubt whether guano, at present prices, will pay at all.

My experience of guano has been with the genuine article, unmixed with other manures, except occasionally with plaster of Paris. How many hundreds of pounds of certain kinds might be used with impunity, I cannot pretend to say. It is quite possible that oats might sustain no injury from a ton to the acre of some of the stuff called manure. The genuine Peruvian uano isg a certain fertilizer within the limits of its capability. T. E. B. *Falston, Md.*

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PROTECTION OF CABBAGE PLANTS.—I have seen somewhere, that to scatter fine corn meal on young cabbages, just as they are coming up through the ground, will feed the ground flea, so as to keep them from eating up all the cabbage, till they get the start of them, and too tough for them to eat. I intend to try it this season. Does any one know of such a case? CYRUS GRAY. *Howard's Lake, Min Ter.*

Prairie Orchards.

Having noticed a piece in your paper on fruit growing in Illinois, by U. Manly of Marshall, I beg leave to make a few remarks on the subject. I have been a resident of north-western Illinois for many years, and I must confess that I have despaired of having as good fruit, (I mean apples and peaches) as in the same degree of latitude (41°) farther east, viz., New-York. The cold, piercing winds, on these bleak prairies, are too severe for peaches, and only the more hardy sort of apples. I know of orchards planted 20 years ago on the prairie, which have borne apples only occasionally. When the yellow locust, a hardy tree, is frequently killed by these fierce prairie blasts, it is not strange that our apple trees are also killed. The top limbs of our apple trees being frequently winter-killed, have to be lopped off, and thus the growth of the tree is retarded, and it assumes a dwarfish bushy appearance. Many of our prairie orchards, unprotected by a locust grove, although they seem to be thrifty, fine looking trees, are very poor bearers. On the contrary, those orchards situated in the timber, on a clay soil, are excellent bearing orchards.

The writer of this has a prairie situation, unprotected by a grove, and has been led to think (with your correspondent E. in a former number) that the prairies (of northern Illinois at least) won't be a good fruit-growing country until we learn to protect our prairie orchards by thick sheltering groves of timber.

Southern Illinois, being much more thickly timbered, and the soil in many parts having more clay in it, is of course a much better fruit-growing country than here in the north-west. Mercer County can boast of some noble orchards, but they are mostly situated in the timber districts. Apple, peach, and cherry trees don't seem to bear well on the prairie, or they are not uniformly good bearers, like our timber land orchards.

Last year was a good year for apples, and one of our neighbors, who has a fine old prairie orchard, gathered twelve bushels of apples from fifty trees. W. C. Brownlee. *North Henderson, Mercer Co., Ill.*

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Amalgamation of Potatoes.

Messrs. Editors—A gentleman of undoubted integrity, lately informed me that he once planted a row of dark colored potatoes (Negro Toes) between two rows of a white variety, (English Whites.) Upon digging them in the fall, the former variety "came out" unchanged in color, while a large proportion of the latter had "amalgamated" with the former. The shape and flavor of the potatoes were not perceptibly altered, but they were covered with patches and stripes of black—as black as the Negro Toes themselves.

Can you inform us, Messrs. Editors, how to account for the above singular fact? That "it is a fact," can be fully substantiated by reliable testimony.

I had always supposed that "hybridizing can be effected only by the impregnation of the blossom of one variety by the pollen of another," and planting the seed balls thus produced. If the character of different varieties can be changed in the same season, by planting together, it is something new to me. E. L. Coy. "*Rural Home,*" *West Hebron, N. Y.*

We have heard of similar results in other cases. If necessary to account for such reported occurrences, without knowing all the circumstances, we might perhaps attribute the result to an inadvertent mixing of seed, or to a simple "freak of nature." A red beet, when quite small (an eighth of an inch in diameter,) was grafted on the root of a white beet, and the united root afterwards grew to about three inches in diameter; yet the two colors remained perfectly distinct; one did not affect the other. If two small growing potatoes could be thus united, the black and white portions would likewise probably remain distinct. If the two were simply placed in contact, each with its entire skin, which, as every farmer knows, is water tight, it would be impossible for the sap of one to pass into and discolor the other. But if the two kinds were in separate rows, three feet apart, it appears to us as difficult for the sap to circulate through the three feet of soil from one root into the other, and thus discolor it, as for a white horse to become affected with black streaks by a black horse travelling the adjacent highway. If the occurrence actually should take place, we should be inclined to account for it in some other way, having a knowledge of all the operating causes.

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Ashes from Tan.

Messrs. Editors—Can you inform me whether the *ashes of tan* are less valuable for the bark having been used in tanning? [Probably not.] Are they worth 8 cts. per bushel and hauling 5 miles, over a road where we can only haul 40 bushels at a load, and make two trips per day? W. *Baltimore, Md.*

Ashes, produced by burning spent tan, are about the same in value as the average of common wood-ashes, with the exception that there is much less potash, and rather more lime. The real value per bushel as a manure, must be determined by the increase of the crop to which they are applied, which varies much with various circumstances. We have known ashes applied to a nursery of young fruit trees to produce no sensible effect; and in another case we have known it to give an increased growth, which amounted to several hundred dollars per acre. A similar variation, but much less in amount, has often resulted from its use on farm crops. From fifteen to twenty-five bushels might be tried on an acre by way of experiment.

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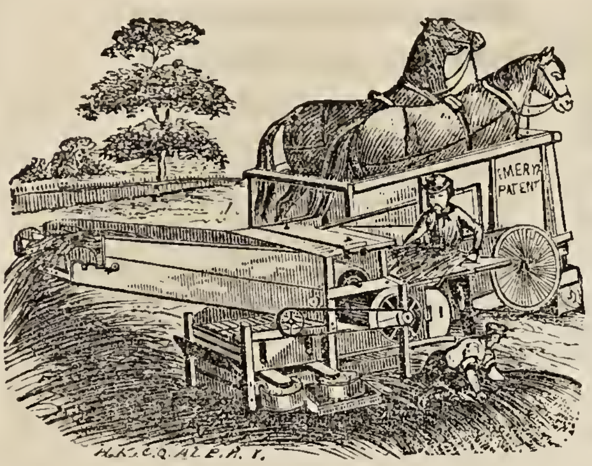

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LOCAL AGENTS in all the principal towns and cities in this and other countries, where none are already established, are solicited, to whom, if well accredited, most liberal terms will be afforded for making this business a safe and profitable investment. All correspondence promptly attended to. ☞ Full Descriptive Illustrated Price Catalogues sent gratis on application on rdceipt of a three cent postage stamp. EMERY BROTHERS.

"Great Sale of Pure Bred Stock."

WISHING to be from home several months the present and coming year, I shall sell by Auction, at my residence, near Aurora, Cayuga Co., N. Y., on Thursday, June 11th, 1857, my entire herd of Short-Horned Cattle, viz : Three Bulls, and eight Cows and Heifers. Also, Seventeen Suffolk and two Berkshire Hogs, and two young Black Hawk Stallions. Catalogues can now be had by applying to me by mail. All my stock have perfect pedigrees, and are equal, if not superior to any similar lot ever offered for sale, Sale to commence at one o'clock, P. M.

M. B. KERR, Autioneer. THOS. GOULD,
Ap.23m2tweow4t Aurora, Cayuga Co., N. Y.

Chinese Sugar Cane.

1,000 POUNDS superior pure seed, cheap, in quantities and parcels to plant an acre, with full directions for culture, for $2.00 ; and 8,000 seed sent postpaid for $1.25, and smaller parcels 50 cents. Also King Philip, Darling, and Stowell Corn, Poland Oats, Madder, Sumach, Rhubarb, Earth Almonds, Raspberries—four kinds, and Monthly Roses—12 kinds, in parcels at 25 cents each, and Norway Spruce, Cedar of Lebanon, and 20 other species of Evergreen Trees—50 cents each ; all these post-paid. Chinese Imperial White Potato, $5 for twenty. Lawton Blackberry, $18 per 100—$3 per dozen. Priced Catalogues of Trees and Seeds sent to applicants,

WM. R. PRINCE & CO.,
April 23—w&m1t* Flushing, N. Y.

NEW NORTHERN
Chinese Sugar Cane Seed.

(SORGHUM SACCHARATUM.)

JUST RECEIVED, a large quantity, PURE AND GENUINE from the original source, and for sale at $1 per pound, and in packets, prepaid, by mail, at 25 and 50 cts. each.

Two pounds are required to seed an acre.

J. M. THORBURN & CO.,
15 John-st., New-York.

Vegetable, Flower, Field, Fruit and Tree Seeds,

Of the most approved sorts and best qualities, at wholesale or retail. March 26—w4tm1t

---

The Muscadine Grape,
A NEW AND CHOICE VARIETY.

A SHAKER SEEDLING.

THIS early, excellent grape ripens early in September, nearly a month earlier than the Isabella. It is perfectly hardy for the Northern climate, a sure and constant bearer, not subject to mildew, and the fruit is delicious and high flavored, having no unpleasant pulp, and has been pronounced by competent judges superior to the far-famed Isabella or Catawba, either as a wine or table grape. Confidently recommending it to the public, and believing that all who try it will find it THE VERY GRAPE they want, we offer the public the roots at prices varying from $1 to $3, according to age and size. Address

RICH'D H. PEASE,
April 9—w4tm2t Albany, N. Y.

Fancy Stock for Sale.

MR. VASSAR offers for sale the following birds and animals, bred at Springside, viz :

- 2 pair young Pea Fowls.
- 2 pair White Turkeys.
- 1 pair African Bantams.
- 2 pair Domesticated Deer, bred in a paddock at Springside.
- 1 four year old Buck, sire of the above.

For further particulars address C. N. BEMENT,
April 16—w3tm1t. Spingside, near Poughkeepsie, N. Y.

Choice Farm Lands for Sale.

THE ILLINOIS CENTRAL R. R. COMPANY,

IS NOW PREPARED TO SELL ABOUT

1,500,000 ACRES

OF CHOICE FARMING LANDS,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE Lands were granted by the Government to aid in the construction of this Road, and are among the richest and most fertile in the world. They extend from north-east and north-west, through the middle of the State, to the extreme south, and include every variety of climate and productions found between those parallels of latitude. The northern portion is chiefly prairie, interspersed with fine groves, and in the middle and southern sections timber predominates, alternating with beautiful prairies and openings.

The climate is more healthy, mild and equable, than any other part of the country—the air is pure and bracing, while living streams and springs of excellent water abound.

Bituminous Coal is extensively mined, and supplies a cheap and desirable fuel, being furnished at many points at $2 to $4 per ton—and wood can be had at the same rate per cord.

Building Stone of excellent quality also abounds, which can be procured for little more than the expense of transportation.

The great fertility of these lands, which are a black rich mould from two to five feet deep, and gently rolling,—their contiguity to this Road, by which every facility is furnished for travel and transportation, to the principal markets North, South, East, West, and the economy with which they can be cultivated, render them the most valuable investment that can be found; and present the most favorable opportunity for persons of industrious habits and small means to acquire a comfortable independence in a few years.

Chicago is now the greatest grain market in the world—and the facility and economy with which the products of these lands can be transported to that market, make them much more profitable at the prices asked, than those more remote at government rates,—as the additional cost of transportation is a perpetual tax on the latter, which must be borne by the producer, in the reduced price he receives for his grain, &c.

The Title is perfect—and when the final payments are made, Deeds are executed by the Trustees appointed by the State, and in whom the title is vested, to the purchasers, which convey to them absolute titles in Fee Simple, free and clear of every incumbrance, lien or mortgage.

The Prices are from $6 to $30—Interest only 3 pr. ct.

Twenty per cent. will be deducted from the Credit Price for Cash.

Those who purchase on long credit, give notes payable in 2, 3, 4, 5 and 6 years after date, and are required to improve one-tenth annually for five years, so as to have one-half the land under cultivation, at the end of that time.

Competent Surveyors will accompany those who wish to examine these Lands, free of charge, and aid them in making selections.

The lands remaining unsold are as rich and valuable as those which have been disposed of.

SECTIONAL MAPS

Will be sent to any one who will enclose fifty cents in Postage Stamps, and Books or Pamphlets, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad Lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc.,—or any other information—will be cheerfully given on application, either personally or by letter, in English, French or German, addressed to

JOHN WILSON,
Land Commissioner of the Ill. Central R. R. Co.
Office in Illinois Central Railroad Depot, Chicago Ill.
April 9—w&m6m

SUGAR CANE.

CHINESE NORTHERN SUGAR CANE.—A large supply of Seed of the very BEST and PUREST quality just received, and for sale at the NEW-YORK AGRICULTURAL WAREHOUSE and SEED STORE. It can be had by the quantity, or for $2 Seed enough will be sent by mail, POST-PAID, to thoroughly plant an acre, with directions for planting and cultivating accompanying each package.

SUGAR CANE.

R. L. ALLEN,
April 9—w2tm2t* 189 Water-st., New-York,

BOOKS FOR THE SEASON.

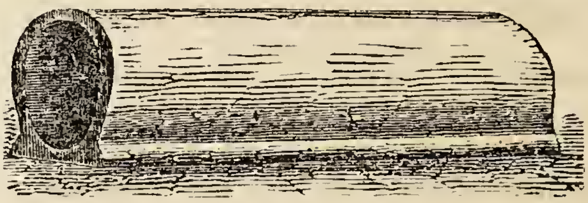
Fruits and Flowers.

☞ SENT FREE OF POSTAGE ON RECEIPT OF PRICE! ☜

Chorlton's Complete Grape Grower's Guide: for the Vineyard, Cold Grapery and Forcing House,	60
Allen on the Grape; a well-known and reliable work,	1 00
"Reemelin's Vine-Dresser's Manual;" for out-door culture and Wine-making,	50
Persoz's 'New Process for the Culture of the Vine,' paper,	25
Elliott's American Fruit Grower's Guide; the latest Work on Fruits,	1 25
Cole's American Fruit Book,	50
Eastwood's Cranberry Culture,	50
Pardee on the Strawberry,	60
Buist's Kitchen Garden,	75
Buist's Flower Garden Directory,	1 25
Breck's Book of Flowers,	1 00
Bridgeman's Young Gardener's Assistant,	1 50

Catalogues of all our Books sent free to any address.

C. M. SAXTON & CO.,
Agricultural Book Publishers,
April 16—w1tm1t. 140 Fulton-street, New-York.



ALBANY TILE WORKS

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE 14 INCHES LONG—PIECES.

2½	inches	calibre,	$12 per 1000
3½	"	"	15 "
4½	"	"	18 "
5½	"	"	40 "
6½	"	"	60 "
8	"	"	80 "

SOLE TILE 14 INCHES LONG—PIECES.

2	inches	calibre,	$12 per 1000
3	"	"	18 "
4	"	"	40 "
5	"	"	60 "
6	"	"	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

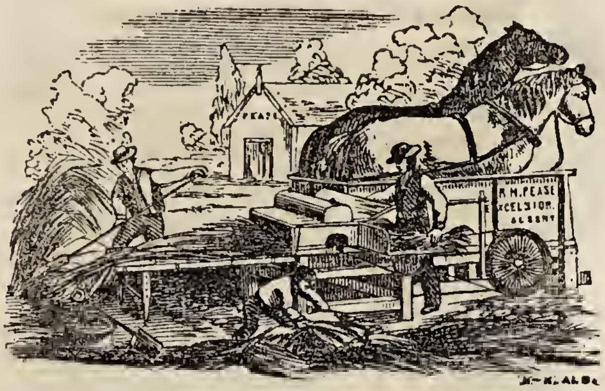
C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.

Important to Farmers, Gardeners and Planters!

THE BROOKLYN FERTILIZING Manufacturing Company are now ready to offer their AMMONIATED TAFEU for sale, for the present at the low price of $25,00 per ton. It is a highly efficient fertilizer, prepared from Night Soil, Blood, and Butcher's Offal, received from the city of Brooklyn, under a contract for ten years—therefore consumers can always rely on its strict purity and uniformity, being manufactured under the supervision of a competent Chemist, and it is warranted to contain a very large per centage of Phosphates, Ammonical and Organic Substances, Potash, and other valuable ingredients, as may be seen by the Analysis in our circulars; and is believed to be one of the richest fertilizers ever used. For orders or further information, apply to the office of the company in Brooklyn, E. D., foot of South 11th street, or at 82 Water street, New York.

N. B. Circulars with full information and analysis will be sent by mail to any one requesting them.

March 1, 1857—w&m3m.



Excelsior Ag. Works, Albany, N. Y.

RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered. RICH'D H. PEASE.

April 9—w3tm3t

Special Notice to Farmers.

National Agricultural and Seed Ware-House,

No. 251 *Pearl-st., (between Fulton and John streets,)*
New-York.

TREDWELL & JONES are offering a new stock of goods in their line at very low prices.

Plows of upwards of one hundred different kinds.
Harrows—Geddes, Scotch, Square and Triangular.
Cultivators for one or two horses, steel and iron teeth.
Field Rollers, for preparing meadows for the mowing machine.
Horse Hoes and other tools for cultivating root crops.
Seed Planters—Emery's and a variety of others.
Churns—the best styles in use, and an endless variety of implements for Farmers and Gardeners.

FERTILIZERS, FIELD AND GARDEN SEEDS.

Call and examine their stock and prices.
Liberal discount to Dealers. March 26—w5tm1t

The Tariff of 1857.

THE new Tariff Act of March, 1857, has been published in pamphlet form, arranged by the editor of the Banker's Magazine, showing every article in alphabetical order with the comparative rates of duty, according to the Tariff of 1846 and that of 1857; also a chronological sketch of the changes that have occurred in the tariff policy of the U. S. since the year 1790, and tabular view of the revenue according to the old and new Tariff. Sold by all Stationers. Address, BANKER'S MAGAZINE,
w1tm1t New-York City.

C. M. SAXTON & CO.,

Agricultural Book Publishers,

140 *Fulton-Street New-York.*

HAVE just added to the number of books published exclusively by them, the following valuable works:

Waring's Elements of Agriculture	75
Dadd's Anatomy and Physiology of the Horse, plain plates	$2 00
Dadd's Anatomy and Physiology of the Horse, colored plates	4 00
Dadd's Modern Horse Doctor	1 00
Cole's American Veterinarian	50
Cole's American Fruit Book	50
Schenck's Gardener's Text Book	50
Leuchars on Hot Houses	1 25
Breck's Book of Flowers	1 00
Bridgeman's Young Gardener's Assistant	1 50
Bridgeman's Kitchen Gardener's Instructor	50
Bridgeman's Fruit Cultivator's Manual	50
Bridgeman's Florist's Guide	50
Stansbury's Chinese Sugar Cane and Sugar Making	25
Hyde's Chinese Sugar Cane	25
The Cotton Planter's Manual	1 00

SENT FREE OF POSTAGE ON RECEIPT OF PRICE.

April 16—w1tm1t.

FOR SALE.

NO. 1 Peruvian Guano,
No. 1 Manipulated Guano,
Superphosphate of Lime,
Bone—fine and coarse,
Poudrette, Plaster, &c
Field and Garden Seeds.

A large assortment of the most approved AGRICULTURAL and HORTICULTURAL IMPLEMENTS.

☞ Also the little AMERICAN MOWER and REAPER, the best harvester in the world, at the low price of $100 as a mower—$120 as mower and reaper combined. This machine weighs only 450 lbs., and is warranted. For sale by GRIFFING, BROTHER & CO.,
Feb. 19—w&m4m 60 Cortlandt-st., New-York City.

TO FARMERS AND GARDENERS.

THE SUBSCRIBERS OFFER FOR SALE 40,000 barrels of their

NEW AND IMPROVED POUDRETTE,

Manufactured from the night-soil of New-York city, in lots to suit purchasers. This article (greatly improved within the last two years) has been in the market for 18 years, and still defies competition, as a manure for Corn and Garden Vegetables, being CHEAPER, MORE POWERFUL THAN ANY OTHER, and at the same time FREE FROM DISAGREEABLE ODOR. Two barrels ($3 worth) will manure an acre of corn in the hill, will save two-thirds in labor, will cause it to come up quicker, to grow faster, ripen earlier, and will bring a larger crop on poor ground than any other fertilizer and is also a preventive of the cut worm; also it does not injure the seed to be put in contact with it.

The L. M. Co. point to their long-standing reputation, and the large capital ($100,000) invested in their business, as a guarantee that the article they make shall always be of such quality as to command a ready sale.

Price, delivered in the city free of charge and other expense:

One barrel	$2.00
Two barrels	3.50
Five barrels	8.00
Six barrels	9.50

And at the rate of $1.50 per bbl. for any quantity over six barrels.

☞ A pamphlet, containing every information, will be sent (FREE) to any one applying for the same. Our address is THE LODI MANUFACTURING CO.,
Jan. 15—weow8tm4t Office, 60 Cortlandt-st., New-York.

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME...Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS, all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

R. L. ALLEN,
Feb. 26—weow&mtf 189 & 191 Water-st., New-York.

COLUMBIAN GUANO,

PERUVIAN GUANO, Government Brand and Weight.
Superphosphate of Lime.
Bone Dust.

For sale by A. LONGETT,
No. 34 Cliff-st., corner of Fulton, New-York.
April 9—w4tm2t

KINDERHOOK NURSERY.

THE Proprietor of this well-known Nursery would inform his friends that he has on hand a large stock of very fine FRUIT, ORNAMENTAL and EVERGREEN TREES, ROSES, &c., which will be sold at very low prices.

A Catalogue will be sent to any one applying by mail or otherwise.

Also, a large stock of OSIER WILLOWS, of the different varieties. Cuttings furnished at very low prices.

Address JOHN H. CORNING,
March 19—w6tm2t Valatie, Columbia Co., N. Y.

"Chinese Sugar Cane and Sugar Making."

NOW ready, and sent free of Postage for 25 cents, and for 3 cents additional, enough seed to plant two square rods.
C. M. SAXTON & CO,
Agricultural Book Publishers,
April 9—w1tm1t. 140 Fulton-street, New-York.

PERUVIAN GUANO,

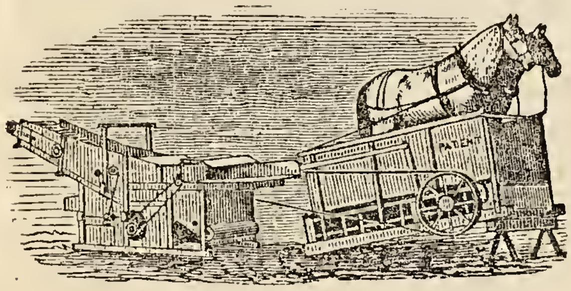
In large or small quantities at Lowest Market Price

R. L. ALLEN, 189 & 191 Water-st., New-York.

☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.
Feb 26—weow&mtf

For Sale,

DURHAM YEARLING BULLS AND HEIFERS—also Calves and LEICESTER SHEEP.
RALPH WADE,
Jan. 1, 1857—m6t Cobourg, C. W.



THE SCHENECTADY AG. WORKS,

Manufacture Improved Railway Horse Powers, Threshers and Separators, Threshers and Winnowers Combined, Clover Hullers, and Sawing Machines.

THE undersigned having been over twenty years engaged in building Horse Powers and Threshing Machines, feel confident from past experience and the numerous testimonials we are receiving from all parts of the country, of the superiority of our Machines, that we can give satisfaction to all who may favor us with their orders. Our HORSE POWERS are made substantial, and so geared that it requires the team to travel only about 1¾ miles per hour, thereby making them suitable to work either horses or cattle on them. Our THRESHERS and THRESHERS AND WINNOWERS, are so constructed as to discharge all the grain and dust through the Machine, and not into the feeder's face as is usual with other kinds. The Thresher and Winnower has a revolving wire separator, which does the work more perfect than can be done any other way.

The SEPARATOR (riddle) has a fork or straw-shaker, which shakes the grain out of the straw as it passes from the Thresher.

We warrant these Machines to suit the purchaser upon trial, or they can be returned and the money will be refunded. G. WESTINGHOUSE & CO.,
March 5—woam&m5t Schenectady, N. Y.

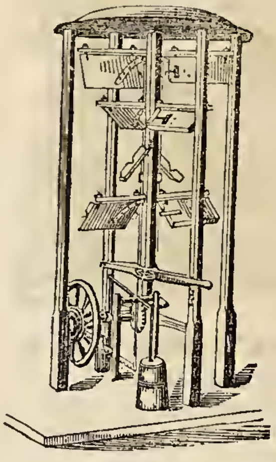
Third Annual Sheep-Shearing
AND EXHIBITION OF STOCK,

WILL be held at the Elgin Spring House, near Vergennes, Vt., on the 10th and 11th of June. There will also be an auction sale of choice stock. The trotting course will be in good order, and premiums will be given on trotting horses and other stock. All are invited to exhibit their stock for premiums and sale.
SOLOMON ALLEN,
March 26—w1tm2t Vergennes, Vt.

King Philip or Brown Corn.

I WILL pack and deliver to the R. R. the above variety of seed corn for $1.25 per bushel. Address
JAS. W. GRAY,
March 1—m3t Ball's Pond, Conn.

Frisbee's New Wind Power.



THIS powerful, useful and durable invention is capable of driving any machinery from a common pump to a gang saw-mill, and is an easily managed self-regulator.

The subscriber would respectfully inform those that desire individual rights, that he is now ready to accommodate them with a nice engraving, description and directions for building, which may be obtained (with a deed,) by sending Five Dollars by Mail. Town or County rights may also be obtained cheaper by letter than any other way. I take this method of advertising because I am confident that hundreds will want to be using this very profitable mill before they could be reached by Agents. Those wishing to secure any amount of territory will do well to address a letter to the proprietor, as that may induce a more speedy call and the first chance with the agent. All orders promptly attended to and recorded
MARCUS FRISBEE,
Ap. 2—w&m1t* Rensselaerville, Albany Co. N. Y.

ALBANY SEED STORE.

Established in 1831.

THE subscriber again offers at wholesale and retail, his annual assortment of genuine GARDEN, FIELD and FLOWER SEEDS, growth of 1856, consisting in part of the following desirable articles:

The NEW NORTHERN CHINESE SURAR CANE, in packages at 25 cents—by mail 34 cents—also a treatise on the Chinese Sugar Cane: its history, mode of culture, manufacture of the sugar, &c., &c. Price 25 cents—by mail 31 cts.

KING PHILIP or Improved Brown Corn.

New CHINESE POTATO—(Dioscorea Batatas) native roots, the lot offered by the subscriber having been raised in the County of Albany. These are fine HEALTHY roots, and offered at $3 per dozen.

CHUFAS or Earth Almonds, 25 cts. per dozen.

CLEAN STRAWBERRY SEED from choice varieties—$2 per ounce.

JAPAN and OREGON PEAS—CHRISTINA MUSK MELON (true), 50 cts. per ounce—New ORANGE WATERMELON, 25 cts. pro package, as also all the most desirable varieties of Water and Muskmelons.

Sweet German Turnip, 12½ cts. per ounce.

Tobacco Seed of varieties—Early Cabbages, Cauliflowers, Brocolis, Tomatoes, Celery, Cucumbers, Egg Plant, Lettuces, Turnips, Peppers, Radishes, and Herb Seeds and Bird Seeds of all sorts.

Garden and Field Peas of all sorts—GARDEN BEANS of all sorts.

SWEET or SUGAR CORN for the Garden—of sorts, viz: Darling's Extra Early, Early Sweet, Early California, Gigantic Constantinople, (very large and fine,) Mammoth Sugar or Large Late, Stowell's Evergreen and Old Colony.

White and Yellow INDIAN CORN of the finest sorts for the Field.

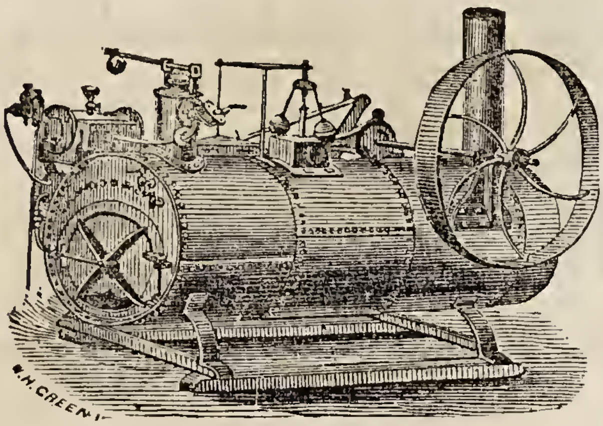
MILLET SEED, Shaker Long-brush Broom Corn, Lucerne or French Clover, White Dutch Clover, Red Clover and Timothy, Red-Top or Herd's Grass, Orchard Grass and Mixed Grass Seeds for Lawns, English Rye Grass, Spring Vetches or Tares, Sun Flowers.

Best Improved Ruta Bagas and other Turnips—Long Orange, Large White and other Carrots—Large Red and Yellow Globe Mangel Wurtzel—White French and Yellow German Sugar Beet—Honey Locust, Buckthorn and Osage Orange for live fences—Yellow Locust for timber and Locust posts, with a large assortment of choice Flower Seeds, of which a package of 20 choice named varieties will be sent by mail for $1, AND POSTAGE PAID.

Spring planting bulbs, consisting of Amaryllis Formosissima, (Jacobean Lilies,) Gladiolus Floribundus, Gandavensis, and Psittacinnus, Mexican Tiger Flower, Red and Yellow—Tuberoses, and Madeira Vines. Double Dahlias of the choicest named varieties at $3 per dozen. The best books on Poultry, Kitchen Gardening, Cultivation of Fruit Trees and Flower.

Orders by mail (be they ever so small) promptly attended to, and Catalogues of my whole collection forwarded by mail, free of charge, to applicants.
WILLIAM THORBURN, Seedsman, &c.,
492 Broadway, Albany, N. Y.

☞ Small packages of Seeds carefully enveloped and safely forwarded by mail. March 19—w10tm2t



PORTABLE STEAM ENGINES,

For Farm and Mechanical Purposes.

A. N. WOOD & CO., Eaton, Madison Co., N. Y., are building, and keep on hand Portable Engines of different sizes, on Trucks or without.

PRESENT LIST OF PRICES.		*Weight.*
2½ horse power,	$225	1500
3 ...... do	$275	1800
4 ...... do	$340	2000
6 ...... do	$520	3500
8 ...... do	$680	4500
10 ...... do	$850	6000

Trucks with cast iron wheels, from $20 to $50 extra, ready to hitch the team on.

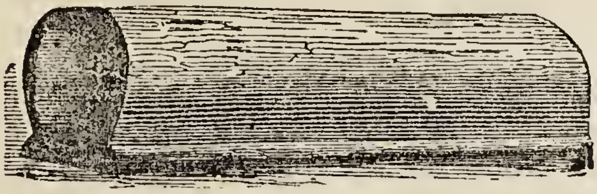
Circulars can be had by addressing us as aboye.

Jan 31—wtf—May 22—mtf A. N. WOOD & CO.

A FARM FOR SALE.

FOR SALE, at $55 per acre, a farm of about 135 acres, of which over 30 are well timbered, situated in the town of Camillus, Onondaga Co., 2 miles from Camillus Village, on the Central R. R. 6 miles from Syracuse, and a short distance from the Erie Canal. Churches and mills of all kinds near at hand. Excellent markets for all kinds of farm produce, within a short distance. For further particulars as to terms of payment, &c., address the subscriber at Belle Isle P. O., Onondaga Co., N. Y., or call upon him on the premises, or in his absence upon JONATHAN WHITE, Belle Isle. HAROLD M. WHITE.

March 12—wcow&m2mos.



Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Willson's Nursery.

HORSE SHOE TILE 14 INCHES LONG.

PRICES—4½ inches calibre, $18 per 1000 pieces—3½ inch. $15 per 1000—2½ inches, $12 per 1000.

SOLE TILE 14 INCHES LONG.

4 inches calibre, $40 per 1000—3 inches, $18 per 1000—2 inches, $12 per 1000.

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also large Tile for small streams and drains about dwellings, &c., at $4 $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchants', 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that Tile from his establishment obtained the first prizes at the Albany county and N. Y. State Fairs. Practical drainers furnised if required.

Orders from all parts will be thankfully received and promptly attended to. Address JOHN APPLETON.

195 Washington-st., Albany, N. Y.

March 26—wcow8tm3m.

THE CONCORD GRAPE.

THE originator of this new grape offers for sale a fine stock raised from the parent vine. It has fully sustained its reputation as

The Best Grape for Out-door Culture,

having survived the two last severe winters unharmed, when the Isabella, Catawba, and other grapes were killed to the ground.

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"The most beautiful" of the new hardy grapes "is undoubtedly the Concord."—[J. F. ALLEN, Report Mass. Hort. Soc. 1854.

The testimony in favor of this Grape is certainly very full and from well-known horticulturists. It may be pronounced large, handsome, and excellent.—[Horticultuaist, Dec., 1855.

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C. S. WAINWRIGHT,
Ap. 9—w10tm2t "The Meadows," near Rhinebeck, N. Y.

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Dec. 11—wcow&mtf Manufacturers, Albany, N. Y.

Contents of this Number.

THE FARM.

Theory of the Management and Application of Barn Yard Manure, 137
Entomology—Insects Imbedded in the Interior of Wood, by Dr. Asa Fitch, 138
Application of Barn-Yard Manure, by L. B., 140
How to Use Hen Manure, by D. A. Bulkley, 140
The Value of Ashes, by One Who Holds the Plow, 142
The Pea Weevil, 142
Potato Culture, 143
Farm Yard Manure, by R. M. Conklin, 144
Application of Manures, by F. B., 144
Wheat in Western New-York, by John Johnston, 145
Guano for Corn, 145
Growing Potatoes, by W. Ansley, 146
Tile Machine, 147
Proposed Experiment with Salt, by J. C. Cleveland, 147
Drill vs. Broadcast Sowing, by T. E. B. and G. B. C., 147
Irrigating Meadows, by A. B. Dickinson, 148
Brush Drains, 149
Use of Plaster, 149
Plan of a House, 152
Inquiries and Answers, 154
New Hand Seed Planter, by H. B. Hammon, 156
Notes for the Month, 157
Award of Premiums for 1857, 157
Wakefield's Corn Planter, 159
Sheep Feeding—Making Manure, by John Johnston 160
Quantity of Seed per Acre, by D. C., 160
The Wheat Crop in Illinois, by B. F. J., 161
Guano for Oats, by T. E. B., 161
Amalgamation of Potatoes, 162
Ashes from Tan, 162

THE GRAZIER.

Cure for Horn Ail, by A. Allen, Jr., 140
Cure for Mange in Swine, by W., 141
Worms in Horses, by H., 141
Corn Cooked vs. Uncooked for Hogs, 146
Cure for the Stretches, by Chas. Colby, 148
The Short-Horns, by Wm. Bush, 150
Highest Priced Sale on Record, 157
Cruelty to Animals, 158
Tartar or Chinese Sheep, by J. Holmes, 161

THE HORTICULTURIST.

About Strawberries, by Edwin Y. Bull, 140
Good and Bad Cultivation—the Difference, 141
Orchards on Steep Hill Sides, by C. B. Ott, 143
Treatment of Dried Apple Seed, 144
Earthing up Fruit Trees, 148
How to Save Girdled Trees, by C. R. C. Martin, 149
Apples for the West, by V. Aldrich, 151
Apple Tree Borer, 151
Setting Out Trees, 152
Chinese Cultivation of Chrysanthemums, 153
Fruit in Western Michigan, 159
Prairie Orchards, by W. C. Brownlee, 162

DOMESTIC ECONOMY.

Kilns for Drying Fruit, by H. Daboll, 139
How to Select Mousers, by Adoles, 146

THE POULTRY-YARD.

Spanish Affinities, 149
How to Raise Turkeys, 153

ILLUSTRATIONS.

Tile Machine, 147
Brush Drains, 149
The Leghorn Fowl, 150
Design of a House, 152
Principal and Second Floors of do., 152
The Chrysanthemum, 153
Hammon's Seed Planter, 156
Wakefield's Corn Planter, 159

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PARDEE'S Manual for the Culture of the Strawberry will ensure success, and recommend the best varieties for the different soils and locations. Price, 60 cents.
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Yellow Stone, do.,	75	do	do
Yellow Aberdeen, do.,	75	do	do
Best American Improved Ruta Baga, do.,	75	do	do
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March 12—weow&m2mos.

THE CULTIVATOR.

THIRD To Improve the Soil and the Mind. SERIES

VOL. V. ALBANY, JUNE, 1857. No. VI.

Manures.

In the old and long settled sections of our country, much of the land has lost its natural fertility, and it is useless attempting to grow good crops of corn, grain, hay and other farm products, without the aid of a liberal supply of manure. On long cultivated soils, usually, the corn and succeeding crops are in proportion to the amount of manure applied to the land in the rotation of crops. Could every farmer have the requisite supply of manure, practically, there would be but little need of chemical and scientific knowledge in the usual routine of farming. But it is the almost universal deficiency of farm-yard manure, that has called forth so much scientific research, in seeking out and bringing to the notice of farmers various substitutes to supply the deficiency spoken of.

If farmers generally exercised the same economy in the care and management of the animal manures about their premises, that they do in many other things pertaining to their pecuniary interests, there would be less complaint about hard times and short crops than there now is. Somehow, perhaps frequently from want of due reflection, many farmers exhibit a culpable neglect in leaving the manure of their farm-stock exposed to the rains, snows, winds, &c., for months together, as though they thought a load of their water-leached trash was worth as much for manurial purposes as an equal amount or bulk of the rich deposites of a barn cellar. Such men do not seem to be aware that a valuable portion of manures can escape in the form of steam and gases generated by the heat and decomposition of vegetable and animal matters; or that another valuable part may be washed out by rain and snow water. The dark-colored drainage of barn-yards and dung-heaps, Prof. Voeckler assures us is more valuable than the urine of animals, because it contains phosphate of lime, which is scarcely to be found in the urine. The urine of a stock of cattle when properly cared for, is asserted by some good practical farmers to be worth as much as the solid excrements. A carefully conducted series of experiments for ten years, by Charles Alexander, near Peebles, Scotland, seems to fully substantiate the assertion. His statement is "that while fourteen head of cattle made six loads of solid manure, the urine voided by them in the same time would saturate seven loads of loam, rendering it of equal value, load for load, with the solid excrements. He tried this experiment for ten years, and had indiscriminately used in the same field, either the rotted cow-dung, or the saturated earth; and in all the stages of the crop he had never been able to discover any perceptible difference; he found that his compost lasted in its effects as many years as his best putrescent manures."

The loam was deposited in a pit 36 feet square, 4 feet deep, surrounded by a cemented wall; the urine was conveyed from the hovel in water-tight gutters in rear of the cows and evenly spread over the loam. The cows were kept most of the time tied in the hovels; at the end of five months the loam was carted to the fields, as also the manure. The number of loads of loam, compared with the solid excrements was as 7 to 6,—or the loam in five months would manure seven acres, while the solid portion would only manure six acres, the number of loads per acre being the same. From the above, it appears, then, that in five months, each cow discharges urine which, when absorbed by loam, furnishes manure of the richest quality, and most durable effects, for half an acre of ground; and in addition to this the saturated loam is nearly or quite free of weed and grass seeds, which renders this kind of manure truly valuable for gardens, roots, and other hoed crops. For light or sandy soils, it might be better to make use of a clayey loam, or swamp muck, as an absorbent of the urine, rather tham loam.

Said the late Mr. Colman, "conclusions of vast importance are deduceable from these statements. They speak a volume of instruction; and if we are willing to learn, they must lead to a very material alteration in the construction of our barns." The remarks of Mr. C. were made many years ago, and it is an encouraging fact, that so many of our intelligent, thinking farmers have made "very material alterations in the construction of their barns," within the past twenty years, while at the same time, it is to be regretted that there are so many farmers that do not make any arrangements to save the liquid excrements of their cattle, either in summer or winter, and in some instances, a leaky floor is considered quite an essential requisite in a hovel. But every farmer should make it a leading object to guard against these losses. If proper skill and economy were used in these matters, there would be less use for guano, superphosphates and other commercial manures, that are now so freely purchased by the tillers of the soil; and there would also be less cause for abandoning the culture of of "wheat in western New-York. The letter of Mr. Johnston, in the Co. Gent. of April 2nd settles that question pretty effectually.

The construction of a well built and convenient barn, with its well walled basement, or cellar, is all very commendable, and generally bespeaks the thrift and enterprize of its owners. With much satisfaction we have examined scores of them, but regret having too often found the owners of them sadly negligent in making the most of their means in the way of manure—that mainstay of successful farming.

We recently called upon a farmer who had, at much expense, built a large barn with a cellar under it. The cattle, some 16 or 18 head, have been kept tied in the hovel most of the time during the winter, perhaps turned out to drink twice a day. They had been allowed no bedding or litter; the manure was daily thrown through scuttle-holes in the floor. The green mortar-like manure could absorb none of the urine; of course it drained off, or soaked into the ground, and was lost. Had he provided swamp muck, saw-dust, or other absorbing materials, to have taken up the liquid portion of the excrements, the contents of the cellar would doubtless have been twice the value that they now are. The labor of collecting the materials would have been most richly repaid in the extra quantity and quality of the manure.

We called upon another farmer similarly situated as to his barn. He wished to make the most of his cellar, and heavily littered his floors with refuse hay, oats, straw, &c. The whole went into the cellar; but from the quantity of litter and urine, the whole mass heated badly, and much of it become fire-fanged and dry; the gases were driven off, and the whole contents of the cellar were much injured by the rapid fermentation. He consoled himself with the idea that his manure had not been leached by rain and snow water, and that it would be well rotted by the time he should cart it out for his corn crop. We suggested to him the probability of his suffering considerable loss in the escaping gases of the heating manure. He thought the gases were of no value; he did'nt see how a plant could feed on air. He doubtless supposes, "the great *scare-crow*, the loss by the escape of ammonia by fermentation, is all gammon."

It seems to be a law of nature, that the death and decomposition of one generation of plants and animals, shall minister to the sustenance and growth of succeeding ones, and we may well suppose that *all* of the constituents of decaying plants will be required in building up new ones—and through the agency of plants animal life is sustained; precisely the same elements that make up the plant, also make up the animal, though these elements are combined in quite different proportions in the animal and the plant. But the fact is as clear as the unclouded noon-day sun, that the great bulk of all plants and animals, is made up of what were once (and will be again,) invisible gases; and these same gases *combined*, as they are when escaping from the heating manure, are as necessary to the production of a luxuriant growth of plants, as are the mineral ingredients that constitute the ash of the burned plant. Therefore it follows, that the farmer should as carefully save from waste the fleeting gases of his manure heaps, as he should those soluble salts that are so readily washed from them by the drenching rain-water.

In the heating manure heap, decomposition and recomposition of its organic matters takes place, resulting in the formation of many newly organized compounds; the most important of these is carbonate of ammonia, a valuable and also very volatile substance, liable to escape in large quantities from heating stable manure. Guano is considered valuable, in proportion to the amount of ammonia it contains—or rather, the amount it will produce by fermentation.

In our next, we will give some account of the management of manure by another farmer.

Drill Seeding.

Mersrs. Editors—In your paper of March 19, *A Western Inquirer* asks, is a drill machine preferable to broadcast sowing? In reply, would say that I tried broadcast sowing by hand until I was heartily sick of it. First I could neither sow myself, nor hire one that did sow the seed evenly over the ground; then, in dragging it in, some of it would be covered too deep and some so shallow that the first rain would wash it out. Three years ago this spring, I came across a drill, (manufactured at Shortsville by H. L. & C. P. Brown,) the construction of which struck me as being exactly the thing farmers wanted, and which, for strength and durability, lightness of draught, evenness in the distribution of the seed, and its entire accuracy, together with the ease with which it could be altered to sow different quantities of seed per acre, I bought. And after the experience I have had with it, I could not be persuaded to return to the old method of sowing by hand again on any account.

My reasons for liking it are: For spring sowing, I can get my ground all nicely fitted for sowing before I take my seed to the field. Then I can arrange the drill to sow any particular quantity of seed per acre, and have it evenly distributed over the ground, no matter how hard the wind blows; and I can set the teeth of the machine so that it will cover the seed at very near the *exact* depth I wish, so that any rains that afterwards fall, instead of washing the seed out, wash it in, consequently it comes up evenly, and all has an even chance. I think I save at least 20 per cent. of the seed and get better crops. I think spring grain should not be covered as deep as wheat, as the ground is cold, and the nearer the surface the seed can be deposited and grow, the sooner it will start.

In sowing wheat also the depth can be regulated according to the state of the ground; if very dry, I cover it deeper than in a wet time, also, if the ground is liable to throw out the crop by frost, drilling in a great measure remedies it.

Of all the different kinds of Drills which I have seen I like the kind I have the best for its accuracy and adaptation for sowing all kinds of grain, and even for planting beans, where one has a small kind which will pass through the distributors, shutting off where you do not wish a row. I understand that the Patentees have recently added an attachment for sowing plaster, guano and grass seed; of its merits I could not speak. I think a Drill should be owned in every neighborhood, either by one person and let out to others, or where a friendly and accommodating spirit prevailed two or three could join and get one, and all enjoy its advantages. H. Daboll. *Canal, Onondaga Co.*

Recipe to Make a Cracker Pie.

To a common-sized bake-tin 8 crackers, to be broken fine, one teaspoonful of Tartaric acid, 1 teacup of sugar, with water sufficient to wet the whole—say half a pint or a little more, with spice to suit the taste. The above I think equal to or better than an apple pie. You can make very good pies out of dry, light bread or biscuit, but it will take a little longer to soak it. I do not claim the above to be original, but I think it worth publishing. It may be new to some if not all. Bake the same as any pie. C. F. Webster, Sen. *Union Mills, Ia.*

In re Superphosphate of Lime.

Eds. Cult. and Co. Gent.—Being not only an advocate for well conducted and impartial experiments, but also about to embark in the manufacture of bone-dust and superphosphate of lime, I feel considerably jealous of any thing that detracts from the real value of either, (when made as they ought to be,) and I look upon the experiments made by M. Levesque (as they appear in your Jan. Cultivator,) as neither a fair trial of the relative value of the superphosphate as a manure for tho potato, nor commented upon by him according to the merits of the case; for even by the figures as they stand in his table, the increase over that of the bare soil is greater in proportion to the expenditure of capital and labor, than any of the other manures tried. Yet he tells us that the superphosphate of lime "was but of slight service as a manure to the potato." He might as well give fine flour a bad name, because a small quantity of it made into a two cent cake, would not satisfy a man's appetite so well as one of a larger size made out of other material and costing five or six times as much. It is my opinion that in testing the value of food for the soil, it would be but right to follow the same principle, as far as practicable, that we do in relation to food for our family. We (who are poor) give the preference to that mode of supplying our wants, which will give us the most and best for a given amount of cash.

Had Mr. L. experimented so as to ascertain on what auxiliary manures the farmer should expend the few pounds or dollars he might have to devote to that object, I think we should have seen a very different summing up; but as he did not, and as I have given his results the attentive consideration he solicits, and have come to a different conclusion to his, I will, with your permission, spread his table of results again before your readers, altering his figures to dollars and bushels to the half acre, so as to make it plainer to the generality.

Table showing M. Levesque's experiment, with the number of bushels of potatoes gained for each dollar expended:—

PLOTS	Description of manure used.	Outlay in dollars.	Half acre increase in bush.	Number of bu. for each dol.
No. 2.	Superphosphate of lime, ...	5	33	6½
3,	Guano, S. Lime and Soot, ...	12	50	4
4,	Guano and Superphosphate, ...	16	86	5
5,	Guano and Vraie, (or sea weed,)	20	57	3
6,	Stable dung and Vraie, ...	27	70	3
7,	Guano, ...	24	106	4½
8,	Stable dung, ...	29	85	3
9,	do do	33	106	3¼
10,	do do	42	190	4½

Table showing what might have been the result had each plot of ground had the same amount of capital or labor been expended on it—omitting the last three.

PLOTS	Description of manure used.	Outlay in dollars.	Half acre increase in bush.	Remarks.
2	Superphosphate, ...	15	99	Showingthat
3	Guano, S. Lime and Soot, ...	15	60	$15 spent in
4	Guano and Superphosphate, ...	15	75	superphos. is
5	Guano and Vraie, ...	15	45	more than e-
6	Stable dung and Vraie, ...	15	45	qual to 20 on
7	Guano, ...	15	67½	otherman'rs.

Mr. L. says he intended "testing the value of certain hand manures as fertilizers in comparison with stable-dung." I contend that he failed to carry out this intention in his test of the value of superphosphate of lime for potatoes. Tho quantity used in Plot No. 2, was evidently not sufficient to amount to a fair test—it was too much below the average quantity and cost of the manures put on the other plots. I think with such a reasonably low-priced manure he might have given a more liberal allowance, as he did in the case of guano put on Plot No. 7, or as he did in the experiment made with the Bullock turnip, where he used five cwt. of superphosphate of lime, and boasts of the immense crop. I wonder it never occurred to him that the potatoes might have proved as grateful for a liberal supply of lime as the turnips did. It would not be a very fair test of pig-feed, to give one pig out of a dozen a quart of corn-meal a day, and all the others their fill of oatmeal, peas and buckwheat, nor would the condition of the starved pig be any evidence against the value of corn-meal.

I trust you will not think I have taken up the cause of superphosphate altogether from selfish motives, for I firmly believe that if made as it ought to be, and sold at a moderate price, it is one of the best auxiliary manures a farmer can spend his money on; and I think that in order to ensure a truthfully made article, each State Agricultural Society ought to have it made under its control and supervision, as will be the case here. It is my intention to try and ascertain by a fair experiment, what amount of superphosphate will be best to apply to potatoes and other roots, and will give your readers the results.

Many thanks to J. A. Craven of Franklin—I will try his remedy for the bark-louse. J. H. Hodson. *Nova Scotia.*

The Water Ram.

Messrs. Tucker & Son—I wish to convey water from a branch to my stable. Distance about four hundred yards. The elevation from the branch to the stable is, I suppose, between six and eight feet. Now I wish to know if a stream of water can be carried and raised the distance and height I have described, by a *hydraulic ram.* Will you or some of your experienced readers oblige a young farmer by giving him information on this point? Also the probable cost of ram and pipes. A Tennessee Subscriber.

For the successful operation of a water ram, there should be a flow of at least half a gallon of water per minute, or twelve hogsheads a day; and a descent of not less than a foot and a half for the driving pipe—which should in no case be smaller than an inchbore. The discharge pipe, through which the water ascends, should be at least half an inch bore. There will be no difficulty whatever in elevating the water to the height named by our correspondent, if the above named facilities exist, as nothing is more common than fifty or a hundred feet elevation, with only a few feet descent. There is no limit to the height, except in the strength of the pipes used—but the greater the fall in the driving pipe, and the larger the quantity of water used, the greater will be the quantity of water elevated by the ram. If there is but little water, and the descent is small, and the discharge pipe runs high, nearly all the force of the stream will be expended in raising the water, and only a very little will be driven up.

The greater the elevation to be overcome, compared with the descent in the drive-pipe, the longer the latter must be, so as to give a greater amount of momentum in its successive beats against the air-chamber.

☞ We are informed that the Drain Tile Works, formerly carried on in this city by Artcher & Co., have changed hands, and that the business will be hereafter conducted by the remaining partner, Mr. Alderson. He is a practical man, and we doubt not his work will give ample satisfaction.

Millet and Millet Fodder.

Messrs. Editors—In answer to your correspondent who inquires how to make millet fodder, (hay,) I give you the following, which you can publish if you choose.

Ground for millet should be rich and mellow, and if new the better; that which will run and bake is totally unfit for it. It should be broken up and harrowed early in spring, and again before sowing the seed. Sow one bushel and a peck of seed per acre, and brush them in. Sow about ninety days before the usual time for the first frost in the fall; a light frost will not injure it. When the seed have pretty generally begun to ripen cut it, or before, if apprehensive of heavy frost. The mowing may be done with a machine or by hand. The hay should not be scattered, but should lie in swath four or five hours to wilt, or what is cut one day may lie till next if the weather is good. As soon as wilted, it may be put into small cocks, made as high as they will stand. I would prefer that it should be forked up by hand; the straw will be straighter, and will turn the rain-water better than if broken and tangled, as it will be by a horse-rake. But if the weather promises to remain good, the latter mode might be preferable. The hay by curing in cocks, will become wet with evaporation; but will not heat if the weather is cool. After three or four days, throw out the hay in the morning, so that the sun and air may dry it; in the evening cock it up again, putting three or four of the small cocks into one. In this condition let it remain a week or ten days, after which it may be stacked or housed.

Millet treated in this manner, will not assume a dead yellow color and become almost tasteless, as it does when cut, scattered and cured by the sun in midsummer, as is practiced by many persons; but will be really sweeter by having grown in the fall, and, by curing in the cock, its color, flavor and sweetness will be retained in a high degree. Managed in this way, I believe that millet will make as good hay as clover, timothy or herdsgrass, and will make a great deal more per acre than either of them.

Another of your correspondents inquires whether the Osage orange is poisonous. I can say that I have seen stock eat both the green leaves and the fruit, without apparent injury.

Now, sir, will you or some of your readers, advise me what description of mill I had best use (considering efficiency and economy,) to crush the Chinese sugar cane from about thirty acres of ground; also, where, and of whom it may be had, and what the price? B. D. Smith. *Brentwood, Williamson Co., Tenn.*

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Trapping the Rats.

Messrs. Eds.—I notice in your last, inquiries in regard to poisoning rats, and having had some experience, I would like to say a few words to those who may be infested by the pesky things. Poisoning I once tried, and though successful, consider it rather a poor way of getting rid of them; for they proved a greater annoyance than when alive, as, when poisoned, they will crawl into some crevice to die, and, especially about the house, will in warm weather produce a result it is needless to describe. Add to this the danger of using poison, and I think the cure worse than the disease. A method which I have a number of times practiced, is to take a common steel trap lightly covered in a measure with meal, the chain attached to a spring pole, and the trap so arranged that when the rat pulls, the trap will be drawn up by the pole. Mr. Rat will then set up a squeal that will drive the balance from the premises; if the first victim does not give sufficient warning, the second or third will surely do it. A Reader. *Castile, N. Y.*

Cows Sucking Themselves.

Gents.—Inform me of some method through the Co. Gent., of preventing a cow from sucking herself. One of my neighbors has a very fine cow that is addicted to this habit. Yours, truly, P. B. Crowder. *Amelia C. H., Va., Feb. 11th,* 1857.

We have had some little experience in this line, and have effectually prevented it by means of a "cow-collar." It is made in various ways, the essential requisite being to prevent the cow from bending her head about far enough to reach her milk—operating precisely as a *straight jacket.* The simplest is a frame, something like that of a common chair, with seat and back off, as represented in the cut, which also shows the manner of wearing it. (Fig. 1.) While this is on, the cow cannot bend her neck more than half way round. But it looks rather convict-like, and we do not like to see animals in our herd so disfigured, and soon get rid of them. They may be easily fattened, with the collar on, but never thrive while they get milk, which spoils their appetite for more plebeian food.

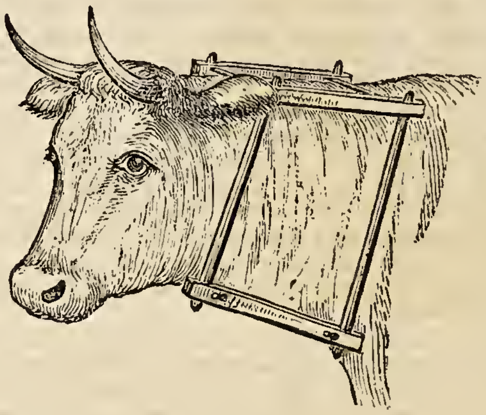

Fig. 1

We have lately seen a notice of a much simpler remedy, but have not had occasion to try it. It consists merely in thrusting a hickory stick through a slit in the nose, so that its ends shall project on each side horizontally a few inches, and prevent the cow from pushing her nose under her leg to reach her dugs. (Fig. 2.) The stick is about half an inch in diameter, (*a*) tapering to the ends for lightness, and with a smaller part at the middle, to prevent its slipping either way, and which causes it to retain its place permanently.

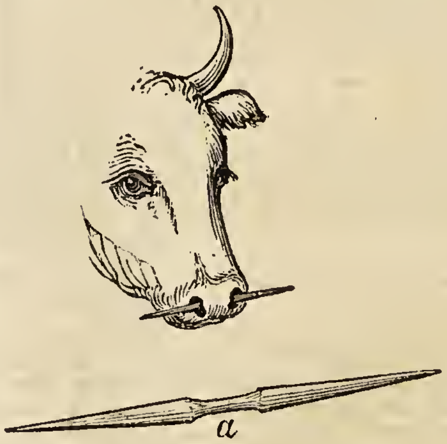

Fig. 2.

Winegar's Water Elevator.

Having had several inquiries for a mode of elevating water from deep wells, more particularly from the western states where deep wells are frequent, we are induced to give a description of Winegar's patent water elevator, illustrated with figures, which we have drawn from a machine whose usefulness has been well proved by long use. From our examination of different methods, we are inclined to think this decidedly the best of all the contrivances, either by pumps or buckets, which we have met with.

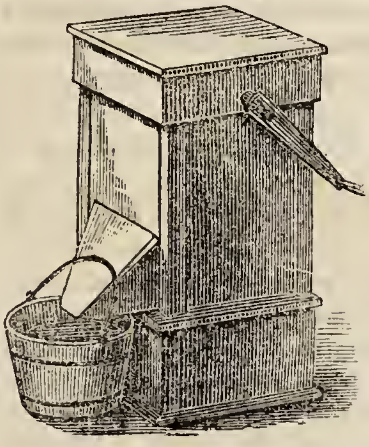
Fig. 1.

Fig. 1, shows an outside view of the elevator, entirely enclosed from view in a case; the water bucket emptying itself, no access to it, nor to any part of the interior, is at all needed. Hence it is as safe from any danger to young children, or animals, as a pump.

Fig. 2 exhibits the mode of elevating the water. Two stout wires, *a a*, descend to the bottom of the well, and are kept straight and in their places by a weight at the lower extremity of each. The bucket *b* is hung n a gate which slides up and down between these wires, worked by a windlass or winch—and the bucket being hung on pivots a little above the middle, tips easily in filling with water, and again when discharging it at top. The great excellence of this invention is the smooth and uniform motion of this water bucket, in consequence of being held in its place by these wires, so that it never strikes the stone wall of the well, no matter how rapidly it may be worked: and the same wires keep the bucket exactly at the right place where the water is discharged, its inversion for this purpose being effected with mathematical precision.

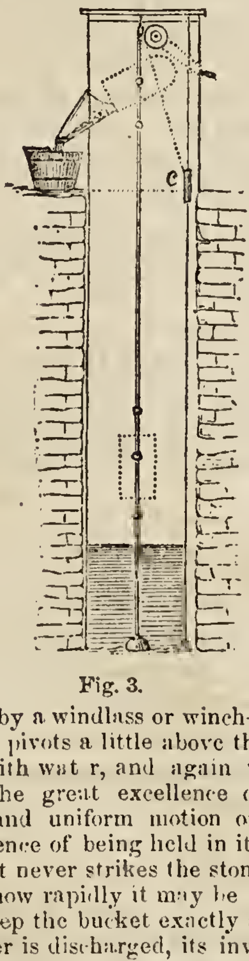

Fig. 3.

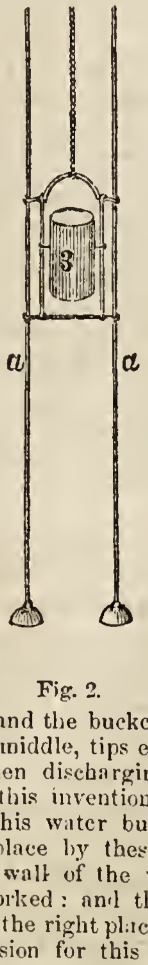

Fig. 2.

Fig. 3, is another view of the same part edgewise, representing by the dotted marks the bucket in the position of ascending from the water, and again at the top emptying its contents A small weight, *c*, runs on a third wire, by means of a cord passing around the windlass, and counterpoises the weight of the bucket, preventing it from descending to rapidly.

In using this apparatus, all that is necessary is to turn a crank or winch, until the water-bucket reaches the top and discharges itself into the pail standing without; the hand is then removed from it, and the weight of the bucket quickly carries it down again. It never fails to dip full of water of its own accord, when down; and to discharge all its contents at the top. This bucket is of tin or galvanized iron.

We feel satisfied that our western correspondents, who are at a loss for a good mode of drawing water from deep wells, and who have asked for information, will find this just the thing they want. Its cheapness places it within the reach of every one, and the remarkable ease of its operation can be only understood by one who has tried it. The inventor is CALEB WINEGAR, of Union Springs, N. Y., who is well known as the inventor of the celebrated automaton gate, and some other ingenious contrivances, and who will impart any desired information on the subject.

* * *

Brush Drains.

MESSRS. EDITORS—Mr. McNeill enquires in the Co. Gent. of 9th inst., respecting "brush drains." There can be no doubt but such drains, if properly constructed, may answer a good purpose. They act upon the same principle of the filter in the lye leach or vat. We think, however, that they would be more expensive than some other kinds of "filling in." To cut, draw, and pack the brush for even one hundred rods of underdrain, would be no trifling job. Tile drains are doubtless, the best and most efficient. Small stones properly packed, answer a very good purpose, but in the absence of tile and stone, we have at different times within the past fifteen years, made much use of small poles for filters in our drains—have used various kinds, such as hemlock, spruce, birch, maple, and recently, black alder poles; these last were from one to three inches in diameter at the stump, and from ten to twenty feet long. The drains were two and a half feet deep, and about ten inches wide at the bottom. Commence at the upper end of the ditch, lay in from four to six poles, according to size, and so on to the end of the ditch, lapping the poles, as directed in filling in brush. Have ready a supply of hemlock, cedar, or spruce boughs, and immediately cover the poles to prevent the soil from the sides of the ditch falling in and clogging. After the boughs are nicely *shingled* over the poles, step into the ditch, drawing in with a hoe a few inches of soil, treading it solid; working backwards, so as to press the covering firm upon the poles. The ditch can then be finally filled with the shovel or plow.

Drains thus made fifteen years ago, and at many times since, are this day running as freely as any tile or stone drain would discharge the water A few years since, I drained a wet, flat, frost-heaving piece of land; before it was drained it was nearly worthless, now it will annually pay the net interest of more than $100 per acre. It was sown with winter wheat 1st of last September. Early in February the snow disappeared; since which time the surface of the soil has been frozen and thawed more than twenty times, yet none of the wheat plants are thrown out or winter-killed, but the field is as green as when the snow came last November Without drainage, we think wheat on this land could not have lived at all through such a severe trial. In thorough underdraining, there is much hard work and expense, but as far as our experience goes, it is a thing *that will pay*. L. B.

Farming in Litchfield County, Ct.

Messrs. Editors—Your excellent papers are extensively circulated in this part of Connecticut, and thinking a brief account of the agricultural affairs of this section would be acceptable, I send you the following:

The soil of Litchfield county, especially the northern part, is a deep loam, resting upon a tenacious subsoil full of boulders, which are a serious impediment to the farmer. With such a soil the principal occupation of course must be dairying or raising cattle. The dairy products of this County have long been celebrated for their excellence. The dairymen keep from ten to forty or fifty cows each, and make the kind of cheese known in the markets of New-York, Baltimore, &c., as "English Dairy," which always commands a higher price than western cheese. Much of it is shipped to other markets south.

We choose our cows especially with reference to their milking properties, and this quality has been materially increased and developed by a careful selection for many years of calves from those cows which have been good milkers, a judicious manager seldom rearing a heifer from any others. The predominant breed is what we style the native, which some of your correspondents say is not a correct name By the term "native," I mean a breed which is perhaps descended from the old Dutch or some other breed, but crossed with the Durham or some other, to such an extent as to lose the peculiarities and materially differ from either of the above breeds. The pure Durham does not endure our severe winters or flourish on our poor pastures, as well as the Ayrshire or the hardy Devon; at least such is the result of my observation

Our cows yield of cheese, from 200 to 300 lbs. each per year, besides from 50 to 70 lbs each of butter. This cheese sells to buyers here at 10 to 12½ cents per lb, and to consumers in New-York frequently as high as 20 cents per lb., making the amount received from each cow reckoning at the higher price (12½ cts) and quantity mentioned above, for cheese $37.50, and for butter estimated at 16⅔ cts. per lb, which is a very low estimate, $11 66. Total amount received from each cow, $49.16.

This result, doubtless, is a little above the average, yet instances are frequent where much greater results are obtained.

For working oxen, the Devons with us have long had the preference, combining the excellent qualities of strength and tractability, and also the readiness to adapt themselves to our rugged soil, which in many parts produces but indifferent pasturage; but even this breed our farmers choose to cross with some other for the sake of greater size. The skill employed by our farmers in rearing and training oxen, is now fully compensated by a demand for them which exceeds the supply.

We send many of our most valuable oxen to the towns lying east of the Hudson in New-York, adjoining our State. The present prices for working cattle may be a matter of interest to many of the readers of the Co Gent

The high price of beef has, for the last few years, kept oxen up to a point never dreamed of by a Connecticut farmer twenty years ago. A pair of oxen, five or six years old, of 3000 lbs. weight, properly trained and possessing good forms, readily sell for $175 to $200. A common pair cannot be bought for less than $150.

This county has a number of public spirited, thorough-going farmers, who are devoting themselves and their capital toward developing the agricultural resources of the State, among whom I may mention the President of the Litchfield Co. Ag. Society, Robbins Battell, Esq, of Norfolk, who is particularly directing his cultivated taste and ample means to the improvement of the breed of horses of the County and State.

The late Lemuel Hurlbut of Winchester, it will be remembered, was an early importer of the Devon breed of cattle into the county, and the first into New-England, and during the thirty-seven years he was engaged in the business, raised and sold over fifteen hundred head of Devons.

I may in future write for the Co. Gent. some of the results of different branches of Litchfield county farming. L. A. Cooke. *Colebrook, Ct.*

Fattening Pigs.

Messrs. Editors—Some two or three years ago, I had a pig that was fed on cooked meal and sour milk until I was laughed at by my neighbors, for the reason that the pig did not grow any. He was kept in this way until the first of October, and was then about as large as your arm. Knowing that I must either buy my pork or plan some other way to make the pig grow fat, I changed his feed to cold sour milk and meal; in less than a week he had gained rapidly, and at the end of two months was slaughtered and weighed 261 lbs.

Last spring I bought two pigs, four weeks old, the 19th of May, for $6. They were taken home and fed on sour milk for two or three weeks, giving them no more than they could eat up from one feeding to the next, always sweeping out the trough at every feeding. In this way they will eat a little at a time, and as often as it is desired; and will be straight and handsome, compared to the pigs that we formerly raised, which were fed on new milk five or six times a day, and nine times out of ten would roll one way just as well as another, on account of their pumpkin like shape. At the end of two or three weeks, I commenced stirring in a little meal without heating, increasing the quantity as long as the trough was found clean at the next feeding. Here I will say, that all the sour milk they had, was what remained of the milk of two cows after a family of six persons had had their supply. Late in the fall I used more than one half cold water to mix their meal in. Together with the sour milk, they ate five or six bushels of small potatoes, and twenty-eight bushels of corn-meal. They were slaughtered at the age of seven and a half months old, and weighed 660 lbs. Thus you see, that for every bushel of corn, I received twenty-three and four-sevenths pounds of pork. The smaller pig was sold for ten cents per pound, which would make both amount to $66. Deduct six dollars which was paid for the pigs, and four dollars for small potatoes and sour milk, and you have $56 left, or two dollars for every bushel of corn, not counting my labor anything. W H. A. *Warner, N. H.*

Feeding Sulphur to Cattle.

Messrs. Editors—I saw in the April No. of the Cultivator, an inquiry respecting the best manner to feed sulphur to cattle. I have been in the habit of feeding sulphur to cattle for twenty years. I mix one pound of sulphur with six quarts of salt, and place it in a box where the cattle can have free access to it. I have not seen a louse on my cattle since I commenced this practice. I think it has a tendency to make the old hair come off more readily.

The best time to feed it is in the fall or winter. If it is fed thus for two months in a year, I think no farmer will be troubled with lousy cattle. Asa Bailey. *Burnt Hills, N. Y.*

Rotation in Crops.

The necessity for *some* rotation in crops, with the reasons which create that necessity, are familiar to all who think and inquire into the *why* and the *wherefore* of opinions, customs, and practices of whatever kinds. But though the necessity of *some* rotation is generally admitted, it is a question which it is difficult to decide correctly what that rotation should be, to secure the best results. It requires no little knowledge and the exercise of considerable good judgment to determine aright the system of rotation that shall be best for any particular district, farm or locality, for the decision demands acquaintance with the *general* principles of vegetable growth and culture, and also with the *particular* circumstances and considerations of climate, soil, seasons, markets, &c., &c. Many might reconsider the question,—"What system of rotation is the best for us?" every now and then with some prospect of advantage.

We have lately met with an account of the system of rotation adopted by an excellent farmer—an Ex-President of the Ag. Society of the State of Michigan—which contains so many good points as to make it quite suggestive and well worthy of attentive consideration. Those especially may study it with advantage or derive from it useful hints, who have not yet fixed upon any particular system of rotation, or may be willing to reconsider the subject when any new light seems to be thrown upon it, either from their own experience or from that of others. Mr. A. Y. Moore, the gentleman referred to, has furnished an account of his system of rotation, by request of the Editor of the *Ohio Farmer*, for the columns of that paper, and from that communication we obtain the following particulars.

Mr. Moore's home farm consists of 160 acres of prairie land, 20 acres of which are occupied by house, garden, orchard, lawns, barn-yard, and four small lots used for pasture, soiling, vegetables, &c. The balance of the farm—140 acres—is divided equally into seven 20-acre lots, which are farmed according to a system of rotation which embraces seven courses, thus: 1, Corn—2, Oats—3, Wheat—4, Clover—5, Wheat—6, Wheat—7, Clover. Each of the seven fields goes through this seven-year course in regular order, and is, in any particular year, at a stage in the course different from any and all of the others.

1st Year.—The rotation commences with a corn crop, for which a clover sod, well filled with seed, is plowed under, with the manure of the barn-yard. Mr. M. plows deeply for this crop, that the clover seed may not be disturbed in cultivating the corn, nor in getting in the next year's crop. This peculiarity of Mr. Moore's management—burying his clover seed—deserves consideration.

2d Year.—Mr. M. plows early and *shallow* for oats, not yet disturbing the old sod. After the oats are harvested and the ground cleared, he plows *deeply* for wheat, bringing up to the surface the old sod with the clover seed, which, when sowed to wheat and well harrowed, will again seed the ground well to clover without the trouble of sowing any seed.

3d Year.—A crop of wheat and fall pasture.

4th Year.—A clover crop, which is pastured till July, when much of the seed is ripe, when again a clover sod is plowed under deeply, with the seed, and wheat sowed and well harrowed.

5th Year.—After the wheat is harvested, the stubble is plowed deeply to bring up the clover seed again, then harrowed, then sowed to wheat, and harrowed and rolled.

6th Year.—A crop of wheat and fall pasture.

7th Year.—A crop of clover for mowing, the land having been well seeded by the plowing process. Mr. M. makes hay early, and reserves the second crop for seed. When ripe, he picks off the heads with a one-horse clover picker, enough being left on the ground to seed it as before.

8th Year.—Rotation commences, the same as the first, with corn.

By this system Mr. M. has yearly 60 acres of wheat, 20 acres of oats, 20 acres of clover for mowing, the same 20 acres for clover seed, and 20 acres for pasture. He has also the straw of 80 acres, and the corn-stalks of 20 more, for the winter feeding of his stock.

On the small lots near the house, Mr. M. raises drilled corn for fodder, and some millet for hay, these being favorite crops with him.

We do not present the above sketch of Mr. Moore's judicious system of rotation and farm management, with any expectation that it should be exactly copied, but for the hints and suggestions which it furnishes. Mr. M. has tried other systems, and adopted this at last mainly because soil and climate were favorable for wheat, and because wheat was the most profitable crop.

One advantage of an established system of rotation, like this of Mr. M., is that one may know beforehand just how much help will be needed, how much team-work will be required, and how much stock of the various kinds can be kept profitably. Some calculations may also be made of what the income should be from sales of grain and clover-seed; but the chief recommendation of this or a like system, according to Mr. M., is this: the owner may have the satisfaction of knowing that his land is constantly increasing in fertility.

Manures.

In our first article on manures, we gave some account of the method of the treatment of their manures by two different farmers. In this we will give a sketch of the management of another. His cattle in the hovels stand upon a raised platform, in the rear of which there is a water-tight gutter, four inches deep and twelve inches wide. It is closed at each end, so that the urine does not run off, but is mixed with litter, sawdust or muck, to absorb it, before clearing the hovels, which is done daily or oftener. In the hovel where oxen are kept, the length of the platform, from the stanchions to the gutter, is five feet; in the cow hovel, the platform is four feet seven inches. Some farmers object to tying cattle in slip stanchions; but when we have made use of bows, chains, or leather straps, we have found the cattle had too much lee-way, and were apt to lay back in their filth.

The barns of this farmer are so situated, that a cellar could not well be made under them. To remedy this as far as possible, the lower story of the smaller barn is made use of to store the manure. This is 20 by 30 feet, and ten feet high. The manure from the largest hovel, and from the horse stables, is thrown directly into the place of deposit; a wheelbarrow is used for removing the manure from the cow hovel. Through the winter season, straw, oats, &c., are used for littering the hovels. The mass, if not attended to, will soon heat as badly as horse manure; to prevent this, every few days the manure is evenly spread over the whole surface of the room, and the young cattle are allowed to tramp it, which prevents its heating. In the spring the manure is all carted on to his corn and other cultivated ground.

Through the summer from eight to ten head of cattle are tied up every night. The hovel doors are left open, and the barn otherwise well ventilated. Sawdust is wholly used for bedding through the summer, most of which is from oak and other hard-wood. Plaster of Paris is daily used on the hovel floors and in the gutters. Two hogs are allowed to root and tramp over the manure, which keeps it from fire-fanging. Last year, from 1st of June till October, he made forty cartloads of first-rate manure; under his former management, in only yarding at night three or four cows, he would not have had over six loads, and that would have been weak, water leached trash. But under his present arrangement, he could and did have the means of manuring for winter wheat, which gave it growth and strength to stand the past trying winter, and the wheat has come through unharmed, while that of some other farmers is nearly destroyed.

We suppose good swamp muck or loam is worth more for mixing with the droppings of cattle than sawdust, but muck and loam are objectionable in the hovel, for as soon as they become wet, from their mortarlike consistency, they stick to the cattle and render them filthy, while the sawdust is cleanly and gives them a soft bed.

From the statements of Mr. Alexander, as noticed in our first article, we do not think any farmer would be likely to use sufficient sawdust to absorb all the urine of his cattle; therefore it would be good economy, as often as the manure is removed, to place a layer of loam or muck to the depth of eighteen or twenty-four inches over the cellar bottom. This would be likely to absorb most of the drainage.

There is much labor involved in tying up the cattle and clearing out the hovels the year round, but from our experience, we know of no way in which the farmer will receive a richer return for his labor, than in making the most of his manurial means, and this must be done in some way similar to the method we have named.

We think there is no way in which plaster can be so profitably used, as by strewing it daily in the hovels. In order to combine with the carbonate of ammonia, either the gypsum or the ammonia must be in solution. Dry plaster and volatile carbonate of ammonia will not combine and form the non-volatile sulphate of ammonia. But mixed with the droppings in the hovel, some portions of the plaster must necessarily dissolve, and when fermentation so far takes place as to generate carbonate of ammonia, a portion of it at least is in combination with the moisture of the heap, and then the right conditions are brought into play for the formation of sulphate of ammonia—a non-volatile state of ammonia. Besides this, the gypsum gives to the sawdust a black color, and hastens its decomposition; and it is a much easier way of spreading plaster over the land, as we cart it out with the manure, than sowing it by hand from a bucket. There are many farms upon which plaster exhibits no visible effects, but such lands, after being dunged with the gypsumed manure, we have known to become extremely favorable to clover—and where a good clover stand can be had, most other crops, and paying ones too, will follow, such as corn, potatoes, wheat and other grains, and grasses.

In the Co. Gent. of 26th of March, page 203, a correspondent, F. B., gives an account of his experiment in growing winter wheat In the fall of 1853, he manured a part of his wheat field, and the other part left unmanured. The portion of the field manured yielded a fair crop; the unmanured part not worth harvesting, it being "winter-killed." He asks, "did the manure keep the ground from freezing so hard as to prevent the winter-killing, or did the manure give the young plants a healthy and robust root and constitution, so that they withstood the severe winter?" We think his last query is the true answer. Sheltering the manure, and saving all its parts and qualities, should be a leading object of farmers in the old and long settled portions of our country.

We shall continue the consideration of this subject in another article.

* * *

THE ROSE ACACIA grafted on the common locust makes a very pretty shrub. I grafted one last April, and it was in full bloom three times before September. R. F. BINGHAM. *Ellsworth, O.*

Preparation of Grapevine Borders.

For my Grape borders, I select free soil and free exposure. Trench 3 or 4 feet deep by 8 or 10 wide, with cobble stone at bottom for drainage, leading into a main ditch. In returning the excavated earth, I add, properly distributed, many articles, such as swamp or marsh muck, sand, turf, wood ashes, charcoal dust, gravel, black mould from the forest, *old compost manure*, dead carcass, broken bone, sulphur, cinders from the forge, burned clay, any old bits of harness, woollen carpet, old shoes, &c., with small stone of every shape, and not a few as large as can be drawn by Poney and stone-boat. The large stones are left a little exposed, which contract heat, and keep the borders warmer at night.

For trellis, insert posts, and nail strips of inch board.

On such borders, I have a few Isabellas on trial. Last season I experimented with one Isabella, set in May, 1855, 3 years old; four do. set May, 1856, 4 years old, and one Concord in May, 1856, 4 years old. I applied to the borders through the season, liberally, soap-suds from the washing department. All these vines made vigorous growth. Had to keep a constant nipping and cutting of fingers and toes to keep them at home. The oldest Isabella was first in the perfection of its fruit. The 1856 Isabellas soon followed. The Concord, though transplanted from Mr. E. W. Bull's grounds, in Concord, Mass., the fore part of May, and materially backed by its transplanting, and did not burst its flowers until the oldest Isabella had made its fruit to the size of a squirrel-shot, overtook the former, and perfected its fruit in equal time. The fruit of both varieties was perfect in every point, and *black ripe*, and in good time. Not even a symptom of mildew was found with any of them, upon fruit or vine.

It is my opinion that the Concord Grape is a degree earlier than the Isabella, not so rampant in growth, not as *delicious* in its fruit, but about equal in size of bunch and berry, and more body for wine. The Concord has a thinner skin and stronger aroma. But after all, I am of the opinion that the "*Isabella*" can be *materially improved* in all *important points*, by *cultivation*. I am trying it. I am extending my grape experiments the present season, and *no abatement* in the "book, fancy and notion system." RURAL. *Buffalo.*

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Milk Houses.

MESSRS. EDITORS—As the warm weather approaches, perhaps some remarks on milk houses may not be unacceptable to your readers. We have a small brick milk house, rough-cast on the outside, plastered within. It has three windows. and a ventilator in the roof. The trough on two sides is of Roman cement, and we have had water pumped in once or twice a day from an adjoining pump. The trough in hot weather had to be washed out every morning, the kettle of cream for churning placed in the ice-house or down the well, but with all our precautions good butter could not be obtained. A year ago it occurred to me to have it boarded on the outside, about a foot from the house, on the roof, and all the sides, excepting where the door is, leaving spaces for the windows. This may be done with rough boards, and the expense is trifling. A draught of air passing between the boarding and the wall, makes the house cool, and quite takes away the necessity of water in the trough, and through the hottest of the weather last summer our butter was sweet and good. In making a new milk house, it would be more convenient to have a broad shelf for the pans of milk. S. L. *Montgomery Co., Md.*

Experiments with Colza or Rape.

In the spring of 1854, I received from the Patent Office a good sized package of Rape seed. About the middle of June I sowed a few drills 15 rods in length, drills 27 inches apart—soil alluvial—previous year raised parsnips and carrots. The rape came up well, the plants greatly outgrowing Swedish turnips by the side of them, sown at the same time. At the first and second hoeing, the plants were thinned to 8 or 10 inches distant. In August, finding the plants too thick, commenced cutting every other plant, and fed them to my cows; but as there had been no rain for many weeks the leaves became so infested with lice, that I abandoned them to their fate. The drouth of that season and the lice destroyed nearly every plant before the frost came. My Swedes and cabbage fared but little better.

In June, 1855, heavily manured a plot of sward land. The manure was evenly spread, and turned under to the depth of six to eight inches deep; the inverted sod was pressed down with a heavy roller, then well harrowed lengthwise the furrows; with a kind of horse-rake drills were marked out; a sprinkling of De Burg's superphosphate was deposited in the drills; seed sown by hand, and covered by the use of a common hay rake. Several varieties of turnips, cabbages, kohl rabis, &c., were sown in the same way and at the same time—all of which produced heavy crops, much better than I have usually grown on old or thoroughly cultivated land. In July commenced thinning the rape plants, and fed them to my cows morning and evening, till the plants averaged about two feet each way. This brought it up to sixty-five days from the time the land was plowed. I then cut, at the surface of the ground, every other plant on an average plot. The lightest plant weighed three pounds four ounces; the heaviest, nine and a quarter pounds; the whole lot averaged a little over five and a half pounds per plant. There were fifty-six plants per square rod, but to be sure of not over-stating, I will call it fifty plants per square rod, and this would give twenty-two tons per acre of choice green food for cows, &c., in less than sixty-five days from the time the seed was sown. Had they been left to grow a month or two longer, there would doubtless have been some tons more; but I commenced cutting a large wheel-barrow full night and morning for my cows, till they were all used up, by which time I had a full supply of Early York Cabbage to succeed as green food for my cows. In course of a few weeks numerous sprouts sprang from the stumps of the rape plants, which gave at the rate of several tons per acre of second crop.

The season of 1855 was unusually wet, and rather cooler than our summers usually are—perhaps much resembling the climate of England, which is considered much more favorable to the turnip and cabbage tribe of plants than our usually hot and dry summers.

The past season I sowed rape seed on a well prepared soil. The plants did nearly as well as those of the previous season. I was several weeks in cutting the plants for feeding my cows—the stumps threw up numerous shoots, which were green and flourishing when the snow came last fall. The snow disappeared early in February, and the plants came out fresh and vigorous, and I thought they would stand the winter. About the first of March severe cold returned, and a few "freezings and thawings" has entirely killed them, root and branch. I left some twenty large plants near a wall, the snow drifted over and protected them; but it melted about the 20th of February, and the plants were as fresh and green as they were last fall, but freezing and thawing a few times has used them up entirely.

Several years since, at the suggestion of the Light House Board, a quantity of seed was imported, and through the agency of the Patent Office the seed was widely distributed to various sections of the country. The object of the board was to test the practicability of growing the seed in this country for the purpose of manufacturing oil for illuminating purposes. The oil is of a superior quality for lamps. I am sorry to say, judging from my experiments, that the project of raising rape seed in the Northern States will entirely fail. The plant is a biennial, and will not survive our northern winters. For raising seed to any extent, it can only be grown in latitudes where the cabbage and turnip will endure the winter without protection. When the plant is cultivated for its seed, it is usually sown in August, and blossoms and perfects its seed in the following summer.

In a late No. of the *Irish Farmer's Gazette*, a subscriber asks, "If I sow genuine rape seed in May or June, can I have a crop of seed in harvest? Is there any such thing as genuine spring rape, if sown in May or June, that will go to seed in harvest?" Answer: "There is no such thing known as spring rape, that is, rape sown in spring producing seed the same season. By chance, rape sown very thickly in very poor ground may run to seed the same season, but will scarcely ripen well."

The growing of rape seed to any great extent in the Northern States I think is out of the question, but farmers that wish to grow it for green food for their cows, may sow the seed in August; late in the fall store some dozen or twenty plants in the cellar, and set them out in the spring, and thus could readily raise seed from year to year. My experiments with this plant for the past two years, have resulted so favorably, that I shall continue to grow them more extensively than heretofore, and shall sow a portion of the seed some two months earlier than I usually have. Perhaps the rape plant is neither "better or worse" for milch cows than cabbages, but it can be grown for feeding purposes in a very much shorter time than even the earliest cabbage.

With rape, cabbage, and the Chinese sugar cane, which can be had in regular succession from July till November, dairy farmers need not much fear autumnal drouths and short pastures. In January, 1856, you published some account of my experiments in growing the rape plant. From that till this time, I have had nearly fifty letters soliciting seed, and I am happy to say I have in every instance been able to furnish them, but am now out of seed and cannot furnish any more. I have received letters from about half the number of our States. From this I judge your paper has a wide range of circulation. L. Bartlett. *Warner, N. H.*

Lice on Domestic Animals.

Messrs. Editors—I notice in the current No. of the Cultivator a method of destroying lice on calves and colts, and although it may be an effectual one, I happen to know what will serve the same purpose, and be much more agreeable in application to those who do not like to use the "weed" in any form, viz., rub curriers' oil on the parts "inhabited," which will kill them all to the second generation. *Lenoxville, Pa.*

As you have published a number of remedies to expel these vermin, I will give you a very simple and effectual remedy. Take some low priced oil, put some Scotch snuff in it, and oil the animal along the backbone from head to tail, and also a streak around the neck an inch or two wide. Two or three applications will expel them. J. W. L.

Remedy for the Hoven.

Cattle pasturing on clover in a wet state, are apt to become bloated. I have relieved them in a short time, by simply placing a straw band in their mouth as a bit, and tying it over the head. In their endeavors to get it out the wind is expelled from the stomach.

J. W. L.

A Munich Horse Market.

Messrs. Tucker & Son—A great horse market has just taken place here, which has rather interested me. It is quite celebrated throughout Southern Germany, and annually calls together not only the buyers and sellers of Bavaria, but also many from the adjoining kingdom.

It commences on Ash Wednesday, at the conclusion of the Carnival, (this year Feb. 25,) and continues this and the two succeeding Wednesdays, of which three days, the first and last are the most attended. Great numbers of people are brought together, especially the peasants, and the opportunity is a good one for sales of other kinds of stock, and cattle and hogs are also brought in, although the affair is called a *horse* market.

It begins at 9 A. M., when the horses are brought on the ground and registered ; at 11 it is at its height, and at 1 or 2 P. M. the ground is all cleared again. Yet in this short time an immense number of horses change owners.

The number on sale this year was about 2,000 the first day, 900 the second, and 1,200 the third, yet the display was by no means brilliant. The many peasants in their huge boots, and with coats and vests resplendent with huge buttons—others from other sections in blue blouses, often women in their gay costume were offering their animals for sale, whose merits they were eager to have you listen to, and here and there among them were a few grooms of noblemen in more brilliant livery. Yet there were but very few good carriage or saddle horses, in fact there appears to be little demand for such stock here.

But very few persons save the highest nobility keep a carriage of their own, and there is no "landed gentry" who pride themselves on their "pair," while the possession of riding horses is confined mostly to the officers in the army. The royal family have now pretty good horses, but they are bred at the royal stables, and do not come in market at such times to any considerable extent, and indeed in the royal and princely studs one finds many horses inferior to those found among farmers and private gentlemen in New-York and New-England. One would see as many good carriage horses in a single drove bought up in Western New-York or Vermont, for the New-York or Boston markets, as in this whole collection of 2,000 animals. The very few that were present attracted the more attention from their variety.

But there were great numbers, especially on the first day, of the heavy draft horses so generally used here for heavy work. Huge, clumsy animals, with sluggish motions, thick legs, made more thick in appearance by the long shaggy hair which I have never seen trimmed here. These horses are used not only for heavy teaming by brewers, &c., but also to some extent by the better class of farmers, and I noticed many of this class of animals changing owners. A large number were stallions.

On the second day of the fair, inferior animals, of no particular characteristics, were predominent, such as are used by the peasants and small land proprietors, by the poorer class of hack-drivers, &c. A most unpromising and unattractive set of animals ; many of them decidedly mean, to be bought at cheap rates, but seeming dear at any price. The prices generally were considerably lower than in Western New-York. The sales were generally effected by the owners themselves; sometimes they have a peasant or groom to show the animal up, but there was but very little jockeying, and even the best horses seemed to have had but very little extra grooming to get them in form for the occasion. For the better class of animals, there are sometimes professional sellers employed to effect the sales, generally Jews, whose reputation for driving good bargains is perhaps well deserved.

There are certainly some advantages in such a fair, where buyers can see so large a choice of stock ; yet I do not see *the great* advantages in the system that many do. It confines selling to particular times, it restricts the chances of sales at other seasons, and requires some trouble and expense at this, especially to those who live at a distance. The fair is not intended for choice stock ; there is no especial display of good animals. But then, it is part of the great custom here of having fairs for the sale of every thing either little or great, and people would rather buy at such a time than at any other, whether there is any real gain or not.

The display of neat cattle was any thing but gratifying. They numbered from 400 to 800 on the different days, some days cows and others oxen predominating. They were decidedly and emphatically, the meanest set of cattle I ever saw together. I was told that the unusually hard winter that had just passed, had left the cattle poorer than usual, and for the credit of the Bavarian stock I hope this is true.

On one day, among over 400 cattle, nearly half oxen, I looked in vain for a single good yoke. Good cows were nearly as scarce, but as an average they were perhaps better than the oxen. The practice of working cows is not so general here as in Baden, nor are they as fine. Cattle here are universally stabled, and their condition at the fair told of the general scarcity of litter, for they were very dirty, or in many cases where the filth had been removed for the sake of the fair, it had been done at the expense of no little loss of hair.

Cattle do not appear to be grown for beef to any considerable extent. Only calves, or superannuated cows and oxen, find their way to the butchers' stall, except in rare cases. With the majority of people, to kill a steer or heifer, but two or three years old, for the flesh merely, would seem almost sinful.

I was so much occupied with the cows and horses each day, that I did not visit the hog department which was at some distance, but judging from the specimens that I saw on their way to and from the ground I think the display of *Berkshires* or *Suffolks* perhaps small. All that I saw belonged to the common breeds one sees in the country. The name "land-sharks" applied to similar animals in America seemed to me entirely inappropriate to these—on the contrary they seemed eminently adapted to the sea coast, although their position has precluded the idea of their having such an origin,—but I would call the attention of breeders in wet places as the flats of Long Island Sound to them : their length of legs would peculiarly well adapt them to wading on the flats at low tide, while the length of the snout would enable them to pick their living among the clams and shell fish at any depth below the surface of the mud.

The raising of hogs is not near as important an item in southern Germany as in America ; the animals are generally inferior, and I think that but little attention is given to their improvement.

The fact is, the condition of the *stock*, (including all kinds of useful domestic animals) of a country, is to a great extent the index of the condition of the people who raise it. And I am thoroughly convinced that all attempts to improve agriculture here will fail, where the first step neglects to improve the agriculturist himself.

A good system of tillage, fine animals of improved breeds, or any general interest in raising them will only be brought about by first raising the condition of those whose occupation it is to till the soil. So long as they occupy the social and political position that the peasants do here, a recognized *lower class* in society, from which it is very difficult to rise into the *upper* (!) classes, so long will they battle improvement, and their systems of tillage, and cattle, and general tastes partake of their condition. Labor itself must be dignified before it can ever be directed with due intelligence, and it certainly is not here.

I may at another time speak of the effect of agricultural schools here, in the region where they are planted, but my present communication is already too long, as it is also for any notice of other agricultural and horticultural fairs I have visited in different places. Yours most truly, Wm. H. Brewer. *Munich, March*, 1857.

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Mice and Trees.

Gentlemen—In your valuable journal I noticed a card signed by yourselves, stating you would be glad to receive any information on agricultural topics which your numerous readers could furnish; I therefore furnish you with the following information, which I deem of the utmost importance to all fruit-growers, as it has proved a certain preventive against the attacks of the field mice on our favorite fruit trees. Last winter I lost a great number of pear and apple trees by being barked by the above animals; I also had some apple trees, ten years of age, so barked. Most of the large trees I saved by applying a mixture of white lead, sand and a little oil mixed together to the consistence of paste, and then applied to the wounded part; it formed an artificial bark, and allowed the current of sap to flow up and down. Last fall I dug around my trees, and spread slacked lime on the upturned soil, and this winter trod down the snow well, after every fall, around them; I have not lost any so treated. But now to the certain preventive suggested by a neighbor of mine—it is the following: Purchase a box of roofing tin, which will cost about twelve dollars, and contains two hundred and fifty sheets, cut each sheet crosswise, hammer the two edges down on opposite sides, bend the tin around your trees and join the two bent edges together; they will protect the trunks fourteen inches above the ground, as the sheets are usually eighteen inches long and fourteen inches wide, and they would leave room enough for the trees to grow larger for many years; and if they are painted previous to placing around the trunks, they then can remain around them all the year, as they cannot rust, and will answer a double purpose—to save the trunks from the mice in winter, and from almost as great a destroyer in summer, viz., the whippletrees on the plow of the cultivator, as almost every one well knows to their cost when they see the life-blood flowing out of many a wound on their idolized trees, and often causing their total destruction. The gentleman above mentioned, saved all his trees so protected with tin this winter, whilst those not so sheathed were barked a foot or more beneath the snow. Horse manure will also answer to keep the mice away from trees, but the tin plan is the best.

A person having his trees encased as described, can sit by his fireside in winter with his mind at ease, when he thinks that all his trees are perfectly safe from these vigilant enemies.

I also know of an excellent plan for keeping the names on fruit trees for years, without any danger of the letters being obliterated, and if you desire it, I will make it the subject of another letter. Hoping the above may prove useful to many of your subscribers, I remain, yours truly, T. S. Clarkson. *Clermont, N. Y.*

⁂ We shall be pleased to hear further from Mr. C as he proposes. Eds.

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Boiled Turkey.

Clean the turkey, wash it well, season the inside with pepper and salt; dredge a little flour over, and pin it in a clean towel; put it into a kettle of hot water that has been salted; let it boil slowly; when done, send it to table hot. This is eaten with oyster sauce, or drawn butter, as preferred.—*Mrs. Widdifield.*

The Cherry Slug.

You would oblige a subscriber, by publishing in the Country Gentleman, a remedy for the worms or grubs on cherry or pear trees, feeding on the leaves, but mostly on sweet cherry trees, eating the pulp out of the leaf, and leaving the frame of the leaf. It is about half an inch long, and a sixteenth of one inch thick, of a dark green color; when full, lighter color; when empty, moves like a snail—the skin so moist that dust adheres to it—a little thickest at one end—makes no nest—spins no thread. Sometimes it destroys all the leaves on the tree. Its first appearance last year, was about the 15th of July. Some of the branches first attacked were killed. The grubs disappeared in three or four weeks—came again in two or three weeks—stripped cherry trees varying in size from one to four inches in diameter entirely of their leaves. E. S. E. *Cheektowaga, Erie Co., N. Y.*

This insect is an old acquaintance with many nurserymen and fruit-growers, and is most commonly known as the *cherry slug*. Dry ashes, or dry water-slaked lime in powder, dusted over these insects, destroys them—but an easier way is to take dry sand or dry powdered earth, and throw it violently against them during the heat of the day, and it quickly dislodges them; and when once down they do not get up again very easily.

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Transplanting Evergreens.

I wish to give your numerous readers my rules for transplanting evergreens, for I think them as easily transplanted as the apple tree. The time here is about the 15th of June, or after the tops have made from one to two inches new growth. First dig your holes for your trees—dig them large and deep—then take a stake six feet long and drive it down in the center of your hole two feet deep—then fill the hole with fine soil to within six inches of the top—then dig up your trees with as many roots as you can get, and set them out as soon as you can, filling around the roots with fine soil. After you have got the roots covered two inches deep pour in one pail of water—then wind some rags around the top of your stake, and tie the tree firmly to the stake, and keep it so tied for two years; and don't forget to cover the ground for two feet each way from your tree, with old hay or straw eight inches deep, and put on some stones to keep it from blowing away.

In this way I have set out Pine, Hemlock, Spruce, and Balsam Fir, without losing one tree. W. *Little Valley, N. Y.*

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How to Destroy Caterpillars on Trees.

Having observed several methods of destroying the caterpillars that infest apple trees in the spring, such as rubbing them off, burning with shavings, cotton and turpentine, &c., I am induced to give you the simple and perfectly effectual method practiced here. Take common soft soap and thin it with water so that it will not slip off the brush, and a person may stand upon the ground and apply it to the nests with a common painter's brush, inserted in a hole bored through one end of a long strip sawed from a pine or other light board, and all that it touches it will instantly kill. If aplied while the nests are small, very few will escape the first application. After the worms are larger, it is equally efficacious, but much more difficult to apply thoroughly.

Any thin oil or oil mixed with spirits of turpentine, is equally destructive to the worms, but the soap is less injurious to the trees. S. L. *Manchester, Ct.*

A Word about Post Holes.

For fencing, I dig post holes—the deeper, and more solid the earth, the better. But for my trees and shrubbery, I make no post holes. For all transplanting, I make spacious beds and borders. If the ground be a heavy subsoil, drain, and set my trees and shrubbery no lower than the surface soil. If I am about to transplant a large tree, say from ten to thirty years old, as I am doing occasionally, on my garden place, I go with my help and *participate* in the *rural luxury*. I make a wide excavation, much beyond the dimensions of the roots of the intended tree, and about two feet deep. Then subsoil with the spade, one spit deep. If a stiff clay, make a discharge drain, leading to the nearest under or open drain, or the tree will surely die. Then with my poney, I draw several loads of foreign materials, such as gravel, marsh muck, forest mould, *old compost manure*, small stone, old bones, turf, leached ashes, and sand, and compost with the excavated earth thrown out. Then fill in with the compost to about one foot of the top. Then I set my tree, and fill in around and over the mass of roots and soil attached to the roots, and continue to grade up about one foot above the natural level. Thus the tree has a deep, rich, warm bed for its future growth; an extensive, free range for its roots, and when settled, the surface around the tree will be at a proper crowning slope. The excavations for large trees should be made one year previous to being occupied by the tree, and left open.

In my own experiments I find no difficulty in success in transplanting trees *of any size*, if the work be done between the falling of the leaf in autumn, and the bursting of the bud in spring, providing *all the work* be done right. Of the two hundred trees transplanted on my garden place since the year 1852, ranging from 2, 3, 5, 10, to 25 years old when taken, I have lost but few of the large size. With the largest I have invariably been the most particular; with the small ones have been too much in a hurry, both at taking up and setting out. One thing I have learned in the business of transplanting—to get a life insurance upon every tree for transplanting. This is done by taking with the tree, great or small, all the roots, to a reasonable extent, from the trunk, *inviolate*, with a cautious thinning of the branches, and the right work at setting out in their rich, warm, spacious beds. It has been my observation for many years, that trees cut up, jerked up, or pulled up, to the loss of most of their roots, and then left exposed until quite dry, and then unmercifully bereft of their branches, to make both ends alike, and then stuck in a post hole, and the clay battered around them to the consistency of a brickbat, *are dead in advance*. Rural. *Buffalo*.

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One Advantage of Rotten Manure.

Editors of Cult. & Co. Gent.—There is an evil spreading over the land which should be entirely done away with, and that is using fresh manure; for it is quite evident that among the hay, &c., fed out to cattle, a vast quantity of the seeds of noxious weeds, as Canada thistle and others as bad, go with the fresh manure, and then the land is filled with weeds, that are almost impossible to eradicate. Farmers will find it greatly to their advantage to pile up their manure drawn from their yards in the spring, and let it remain during the summer to ferment, and thus destroy the seeds, that would otherwise germinate, and if possible place it under cover, and pour all liquid manure on it. By doing so they will find their account in it. Columbia Co.

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Recipe for Rheumatism.

Lemon juice is relied on by the physicians of London for curing rheumatism. Three tablespoonfuls per day is a dose for a man. x.

Underdraining with Stone.

Messrs. Editors—A writer in the Country Gentleman inquires if any one has experimented with under drains of round or "cobble" stones. I can give something of an answer.

Some four years since, an old countryman in my employ informed me that he could lay an effectual "pipe" of small stones laid regularly in three courses, one on each side and one on the "shoulders" of these, forming the top. The top course must be laid so as to wedge between the others, to keep them apart, and must be covered with turf, straw, or something to keep the earth from filling in, till an enduring crust is formed. We tried "taking up" a water vein, in a hillside, running along nearly on a level, and forming numerous springs. There is a strata of quicksand, in, or at the bottom of which the stones were laid. The trench was dug from two to four feet deep, and no wider at the bottom than was necessary to receive the "pipe,"—say one foot. It was filled rather imperfectly, being on a steep bank where tilling could not be done. It was fully successful—intercepting all the springs, emptying them in a single and constant stream at the mouth of the drain, and continues as good as at first.

The amount of stones required in a drain of this kind is not large, and an experienced hand will lay 30 or 40 rods in a day.

In building a fence on the side of the garden we dug a trench some two and a half feet deep—set the posts on the bottom, and filled around them with loose stones to the top of the ground, then filled the spaces between with stones thrown in at random, mainly to the depth of a foot or more, and after covering with turf, filled up with dirt. This has been a good and useful piece of work, for, besides draining the land, it preserves the fence from the action of frost, and in a measure from decay. Some days after a light rain, and when all around is dry, this drain is seen discharging water, though dug in a ridge of the hardest clay soil.

It will avail little to express my faith in the utility or practicability of this, or any other mode of underdraining, so long as that faith is not followed by "works" more extended. It however, appears providential, that in a region almost destitute of stone, these little boulders should appear, so well dispersed, and at the same time so fitted to this important use—draining the soil they now encumber. However, I am of the opinion that if the manufacture of draining tiles was commenced, there would soon be a good demand for them, as being the most convenient and suitable. C. G. Calkins. *Ashtabula, O.*

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Hard Soap for Family Use.

Take two pounds of clear grease to one pound of rosin; make this into soft soap, and while it is boiling, to every ten gallons of soap add one gallon of salt. Boil one hour after adding the salt. When it is done boiling, the soap will be at the top and the ley at the bottom. Skim off the soap; keep it and gently stir it in a leaky vessel, so that the ley will all run out the same as buttermilk does out of butter; then work the soap as butter is worked, until it is as thick as hasty pudding; then set it away to cool. Turpentine or tar will answer instead of rosin, but are not so good. Any refuse salt is good enough, or old pickle.

Another: Omit the rosin, and make as above. When the soap is skimmed off, and the ley all drained out, add boiling water to the soap, three parts water to four of soap; stir well together, and continue to stir it gently as long as it is thin enough to settle level. E. W.

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Inquiry.—Will turnips, carrots, onions, or any of the root crops, do well on a green-sward turned deeply under, so as to leave a fine rich tilth on the surface, providing it is a *quite rich sandy loam*? J. W. B.

"Exhaustion of Soils."

In the Co. Gent. of 23d April, H. B. S. of Guilford Co., N. C., has a short article on the "Exhaustion of Soils," and asks "How can I collect materials from the woods, my tannery, &c." It is principally due to the long continued deposits and decomposition of woody, herbaceous, and vegetable matters, on our good new soils, that gives to them so much of their natural fertility. In our forests centuries have gone and come since first vegetation began to draw from the soil those mineral constituents so necessary in their organization, and also from that never-failing store-house the atmosphere, those organic matters, of which the structures of plants are so largely composed. These constituents of vegetation, when once organized in the plants or animal, seem to be more readily available, by their decomposition, as food for plants, than the raw or unorganized materials, such as the potash, sulphur, phosphorus of the rock, &c., and the nitrogen, oxygen, and carbon of the atmosphere.

It has been wisely ordered that "plants should grow naturally without cultivation, because the soil and the air always contain a certain quantity of the elements they require; and as they die in the spot where they grew, or are consumed by wild animals, these substances, sooner or later, find their way back to the soil," and thus its fertility is kept up, if not annually increased. "But when agriculture comes into operation, these conditions are changed; the crop is removed from the soil and consumed elsewhere, and though the air will still afford the elements which are derived from it as abundantly as ever, the next generation of plants must find in the soil a diminished supply of the substances it obtained from them. The necessary consequence is, that if the cultivation of plants be continued, the quantity of valuable available matters in the soil becomes less and less, until at length they are so much reduced as to be no longer sufficient to maintain the growth of plants, and the soil is then said to be exhausted."

Says our correspondent, "this has been the manner of cultivation in the southern states, I presume, since Sir Walter Raleigh's time." Unfortunately, this ruinous system of farming and cropping, year after year, without making adequate returns to the soil of those necessary properties removed in the crop, has by no means been confined wholly to the southern states. Large portions of all the "Old Thirteen" are in a similar predicament; hence the mania for emigration to the rich, virgin soils of the great west.

Every one at all conversant with farming operations, is aware that the application of barn-yard manure in liberal quantities will restore fertility to these exhausted soils. But few farmers and planters, compared with the many, who have scores and hundreds of acres of arable lands, can have the requisite supply for but a very few acres, and the various substitutes, guanos, superphosphates, tafeus, and poudrettes, &c., &c., are too limited in supply, and too dear in price to come into very general use—even if their use would add permanence to the fertility of the soil; a question that is not yet clearly established.

In our experience, we have found heavy dressings of the more bulky kinds of manure, such as a compost composed of one part manure to two of swamp muck, or the decaying leaves and mold from our wood lot, or even sawdust, and spent tan, much more durable and effective than the most highly concentrated ammoniacal and phosphated manures, applied in the usual homeopathic doses, and larger quantities would not only be wasteful, but probably injurious to the crop to which they were applied. For the greater permanency of the ublky manures, we think there are both scientific and common sense reasons, which we will attempt to point out in the series on manures we have commenced, by which we not only hope to benefit H. B. S., but other tillers of the soil.

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Sheep Feeding.

We published some weeks since, a letter from Mr. Johnston, giving an account of his feeding 500 sheep the past winter, the great object and the principal profit derived from it, being the value of the manure thus made. This course of winter feeding of both cattle and sheep, Mr. J. has practiced for many years, and by the abundant supply of manure obtained, has been enabled to enrich every acre of his farm, and with the aid of underdraining, to bring it all to the highest state of productiveness. In most years he has found this system of winter feeding highly remunerating, to say nothing of the value of the manure—often realizing very high prices for his corn, oats and hay, when thus converted into beef and mutton.

We are pleased to be able to add an instance of very successful sheep feeding in our own county. Mr. Jurian Winne of Bethlehem, has practiced it more or less for three winters past, with very satisfactory results. He had about 300 sheep to dispose of this spring, 280 of which he purchased in Canada West in the fall. He fed them three months with corn, oats, carrots, oil-meal and hay, and calculates the cost at about $3.50 per head. Two hundred and thirty of these sheep, estimated to average 165 lbs. each, he sold to Messrs. Woolford & Todd of this city, at $12 per head, and the balance of the lot at $7—prices which paid a very handsome profit on the feeding, over and beyond a very considerable amount of the most valuable manure.

Mr. W. has furnished us the weights of half a dozen of these sheep. When he commenced feeding, they averaged 177 lbs., and after being fed four days less than 3 months, an increase of 36 lbs. per head was shown, the average for each reaching 213. We have requested Mr. W. to furnish for our columns the full particulars of his management, and are sure they will be read with much interest. He had the precaution, instead of taking such sheep as he could pick up in his vicinity, to go some distance to obtain cross-breeds, more or less tinged with Leicester blood, and the best adapted, in his opinion, for mutton sheep.

In all this, as we have shown, there is little, if anything, dependant upon chance. In one or both of the two resources afforded by the meat and the manure, remuneration is certain. Well would it be for our farmers if more would acquire the secret of fertilizing their farms in this way, and, with the extreme high prices of meat in our cities for the past few years, and the likelihood of their continuing so for the future, there is little probability of their having to wait long for a return of the investment. It is easy at least to make an experimental beginning; and those who are so situated as to do this, will not be likely to regret the trial. We shall be glad to publish any further facts that may be in possession of our readers, tending to throw light upon the subject. There is wealth enough at the command of the farmer, if he only knows where and how to look for it.

* * *

Sale of Stock.—I have recently sold to Messrs. Fanning & Allen, agents of the Tennessee Live Stock Importing Co., a choice lot of South-Down sheep and Berkshire pigs—also a stud colt of the Messenger blood. I have also sold five South-Down ewes to J. P. Fisher of Kentucky, and one ram and five ewes to A. Clement, Esq., for a gentleman in Penn. Daniel B. Haight. *Dover Plains, N. Y.*

Root Crops—Humbugs, &c.

Messrs. Editors—I was allowed an opportunity two years since, of urging upon the readers of The Gentleman, the importance of Root Crops, *as a means of renovating the soil.* The idea was advanced that there was possibly no means in the reach of the farmer whereby so great a quantity of food per acre could be raised and converted into fertilizing matter, and then returned to the soil, as this; and that by a continuance of this course (with suitable rotation,) and judiciously saving and applying the manure thus made, land could be more rapidly improved than by any other system of cropping.

For the last two seasons I have continued this course, having averaged 2,000 bushels yearly of carrots and bagas, and shall most assuredly follow it so long as it meets with my expectations, and *no longer.*

The *modus operandi* has been so often described in the Gentleman, it would be superfluous in me to say anything on this; but some few facts regarding their culture may not come amiss. In the first place I do not think carrots should be put in too early—not till the earth is fully warm so that the seed will speedily germinate, and not allow the weeds to get the start too much. In most localities I should think the last week in May preferable, and for bagas the 10th to 15th June.

As regards the soil, clover sward of one year's growth I think the most desirable for bagas and possibly for carrots, though for the last named, land put to some hoed crop the previous year has usually been preferred. The past season I raised one-fourth of an acre of carrots on a piece of heavy clover, plowed under the first week in June, and think with less labor in weeding than on old land. The above piece yielded about 800 bushels per acre—a usual average with me. My best bagas went some 1,150 bushels per acre. On a manured three-fourths of an acre the past season, I took 29 full wagon loads—single box without any sideboards. I weighed several loads, and the average weight was 1,200 lbs. each load. On another piece of half an acre I took 18 loads.

But what I wish is not to publish my own doings, but to endeavor to incite others just to try (on a small scale at first,) and see if these things are true, or if it is really only another of the "agricultural humbugs," about which we see and read so much now-a-days.

And while on the subject of humbugs allow me just to caution my brother farmers, against giving up too large a space of their best land the present season to the culture of the Chinese Sugar Cane. Don't make up your minds that we are going to manufacture from it all our own molasses and sugar, besides having a residue left to winter our cattle on; but just wait one season, and see how your neighbors make out with it before venturing too deeply upon this untried speculation, and ever bear in mind the Morus multicaulis, Rohan potato, and other worthless articles which have been palmed off upon the unsuspecting farmer in former years. see p. 196.

* * *

People's College.—The location of this college has been definitely fixed at Havana, the capital of Schuyler county, near the head of Seneca lake. At a recent meeting of the trustees, committees were appointed to locate the buildings, and to commence their erection as soon as shall be deemed advisable—to take temporary charge of the agricultural interests of the college, and make suitable disposition of the lands for the coming season—and to report a plan of study for the college, and to designate persons to be employed as professors, officers and lecturers therefor, subject to the approval of the Board of Trustees at the annual meeting in August next.

The Wheat Crop.

Messrs. Luther Tucker & Son—I was much pleased with Mr. John Johnston's article on the "Wheat in Western New-York—Prospects of the season—Higher Farming required—Underdraining, Feeding and Manuring," which appeared in the Co. Gent. on the 2d of April inst., and also was gratified with your remarks thereon. Mr. Johnston writes in a thorough practical style, which shows that he has had experience, and that he also possesses sound judgment; and I heartily concur in all that he says.

I am convinced that thorough underdraining, wherever needful, is the foundation of all good farming; and without draining on wet lands, we cannot expect to cultivate successfully. Draining not only frees the soil from superfluous moisture, but it also completely alters its mechanical texture, rendering it much more porous, open, and friable, so that the roots of cultivated plants can penetrate it with much greater facility in search of food. On drained land the manure which is applied is of much greater service to growing crops than on land that is wet; and besides this, the land is much easier cultivated, and can be plowed in a moist season, when land that is not drained would be too wet. I have known many instances in which the increased quantity in the two next succeeding crops has paid the entire cost of the underdraining. I believe that it is a great fallacy to imagine that it will be necessary to discontinue growing wheat, either in western New-York or any where else, on land adapted to its growth, and we may rest assured, under such circumstances, that when the land tires and fails to yield a crop as it formerly did, that this arises from mismanagement. My connection with agriculture for nearly half a century, has clearly proved, to my mind, that by fair cultivation and a judicious rotation of crops, embracing suitable changes from green and root crops to grain crops, there is no fear but the land will continue to produce satisfactory crops of wheat in due course. If we continue to grow one kind of crop too frequently on the same land, or for some years in succession, that land will inevitably become exhausted of some of its constituent elements; because the same species of plants are continually extracting from the soil the same material elements for their food, until at last there is not sufficient of those elements left to produce that kind of crop. Different species of plants, however, require different kinds of food, from the soil in which they grow; hence it is evident that by repeated changes excessive exhaustion will be avoided; so that with manuring and proper cultivation, the land may be kept continually in condition for growing satisfactory crops of wheat, as well as other remunerative farm crops.

Mr. Johnston's method of feeding cattle with oil cake and other matters, is deserving of imitation, because at the present prices of butchers' beef, it will be remunerating, and the rich quality of the manure produced by this kind of feeding, would lay the foundation for more substantial crops in future years. In order, however, to produce beef and mutton most profitably, the principal part of the feeding material ought to be produced on the farm where the cattle are to be fed; and this can only be accomplished by adopting a systematic rotation of crops that will enable the farmer to produce turnips, mangle wurtzels, potatoes, corn, linseed, or what else he may require for feeding purposes.

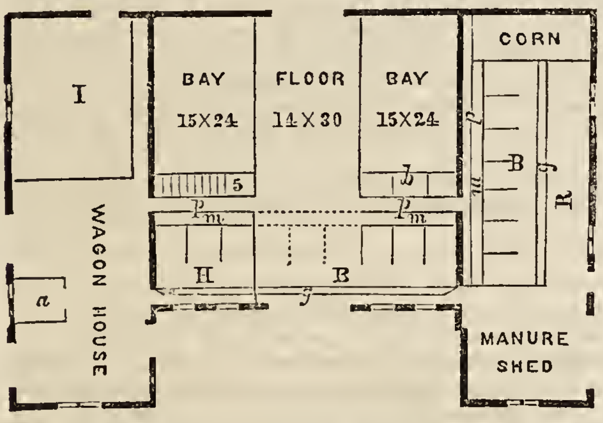
In conclusion, I would say, that if a judicious rotation of crops were adopted, and Mr. Johnston's advice and example estimated at their true value, there will soon be no need to think of discontinuing the wheat crop. T. Thomas. *Milwaukee, Wis.*

A Barn for a Farm of 100 to 200 Acres.

[We commend the following plan to our readers, as combining many advantages and conveniences, for a barn of medium size, on one floor.]

Messrs. Tucker & Son—I herewith send you a plan of a barn which I have recently had erected, thinking it may afford a hint to some of your readers who may be building or remodelling.

Among the *sub-agents* which have contributed so much to our civilization—ever quietly at work, developing new ideas, originating new wants, and crowding individuals along by such a gentle pressure that they scarcely realize they are making any progress at all, the improvements in the art of building habitations for men and animals must be regarded as one of the most effective. These improvements have been general for only a few centuries, but it would be difficult to estimate the extent of their magic influence upon the mental and physical development of the race. I may say that the effect of comfortable habitations upon the lower orders of animals is quite as apparent as upon man, and it is seen, not only in early development and freedom from diseases, but in the milder nature of their dispositions, in their greater tractableness and the increased acuteness of their instincts. These are certain results; they are also positive advantages; and it would be a great gain to farmers if they would bestow more thought upon the arrangement and construction of farm-buildings.



B. Cattle stables 14 feet wide, with gutters and raised platform.
H. Horse stalls.
I. Sheep barn.
R. Raised platform, to be kept always clean.
p. Feeding passages.
b. Meal bins.
s. Cellar stairs.
a. Harness room—may be made larger if desired.
m. Mangers.
g. Gutters.
The doors and windows are readily distinguished.

The plan accompanying this, I have arranged with a special view to the saving of labor in attending to stock, storing and feeding out the harvests, comfort of the animals, and economy of construction. The main barn is 44 feet square; the additions are put up at the ends in the *lean-to* style, at a very great saving of means. I enter upon the floorway from the north, and usually back out, although when necessary I can drive through by removing the manger and stalls, which are in front of or across the floor-way, and which are so made as to be easily removed, and indeed, they may be kept out entirely during summer. If I desire to deposit grain or hay over the stable, I drive the forward end of the load up to the front of the stable and pitch off. But it is my purpose to keep this always clear to receive the straw from the threshing machine, to be used for bedding, &c, a place being left open through which it may be put down behind the animals.

The manure is all wheeled into the manure shed, which is boarded and battened tightly to the roof, to prevent the gases (should any escape) from mingling with the hay in the lofts. Gutters are also sunk just behind the animals and the liquid portions are either carried directly on to the manure pile, or are soaked up by absorbents placed in the gutters for the purpose. The latter is the better plan, I think. A slight inclination is given to the stable floors, but not too much, fearing injury to the posterior muscles of the legs.

It will be seen, that once within, all the animals may be fed without going out, except pigs and poultry, for which separate apartments are provided. Hay may be thrown from the mows and lofts directly into the feeding mangers. The cellar may be made either under the wagon house, or under the bay; mine is under the former and well lighted. In the portion marked I, there is no floor. If desirable, a shed may be run across the entire length of the barn, connecting the manure and wagon houses. At one end of the cattle stable in the addition, is a corn-crib, which is filled from without, and which has a small door from the feeding alley.

Hoping the above may furnish some useful hints to those of moderate means who desire a convenient barn, I am very truly yours, &c. Chas. Betts. *Burr Oak, Mich.* 1857.

Manures and Corn Culture.

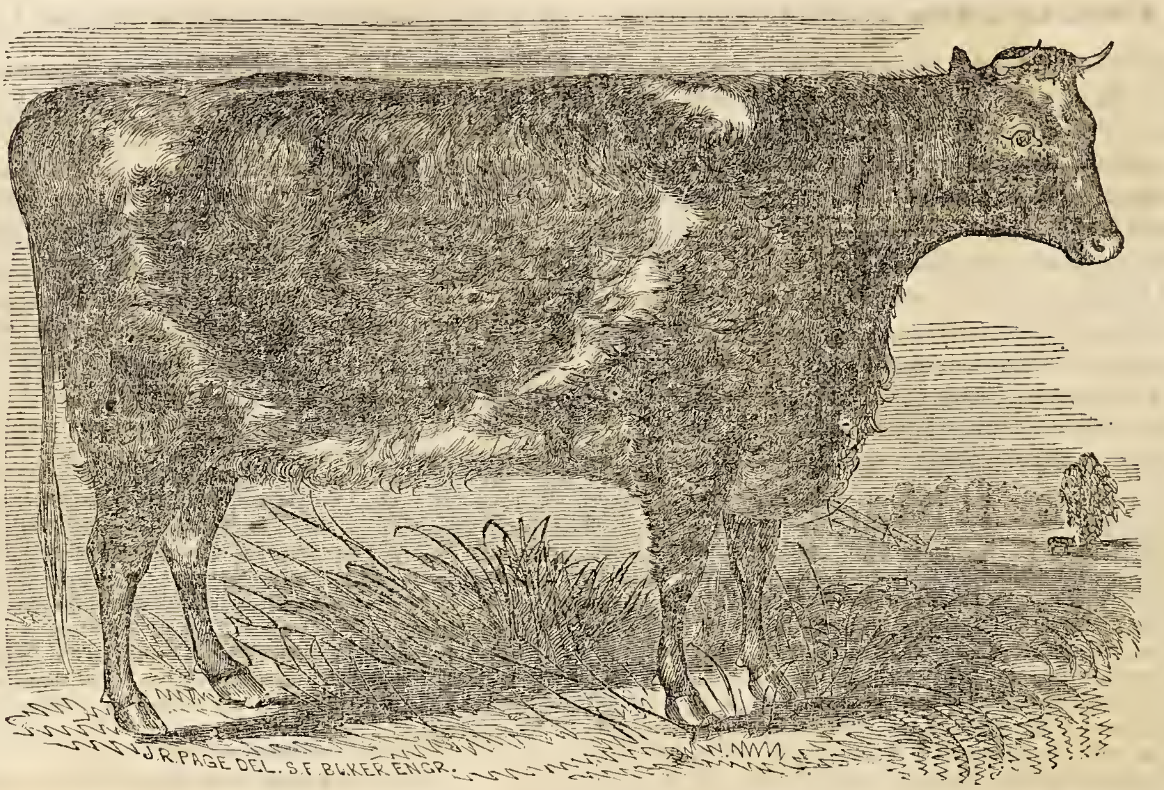
Messrs. Editors—I have been a subscriber to "The Cultivator" ever since started by Judge Buel. He altered my way of applying farm-yard manure. I used to let my winter manure lay over the summer—cart it out in the fall—put it in heaps for corn, to put in the hill the next year. I now apply all my manure in a green state. As there is much written at this day upon the application of manures, I will state how I apply mine. In the spring of 1853 I turned over a clover sod some six or seven inches deep, harrowed, furrowed three feet apart, deep, had a man draw out the manure green from the stable window—put a large shovelful in each hill. I followed with plaster, threw a little on each hill, covered it deep, stamped it down with both feet, and let it lie till ready to plant. Then I strewed six or seven kernels on each hill, and the man covered. This manure was from oxen fatted the previous winter on good hay and meal, without litter. The corn was thinned to four stalks in a hill and hoed three times.

In August of that year the Tolland Co. Ag. Society was formed. I was advised to enter an acre of corn for a premium. I got a surveyor, measured off an acre, and complied with the requirements—had eighty-three bushels and some quarts of shelled corn, and obtained the first premium.

I plant all my corn on green sward plowed in the spring—dunged in the hill with green dung without any preparation. As the sward and dung decompose they furnish heat and moisture to the young corn, just what it wants.

Two or three years ago I was plagued to get any plaster. I got enough for my potatoes and part of my corn; put it in the hill as above stated. Where I put the plaster the corn was of a better color, and larger all summer, and yielded better at harvest. My neighbors asked me what made the difference in my corn? I told them plaster. I said I would pay a dollar a bushel before I would plant without it.

In the spring when I split the hills, the dung where I put the plaster appeared to be all decomposed, and the strength all gone. The oats where there was no plaster, were a good deal the best, and so was the grass. I never have received any benefit from plaster only in connection with manure. If I apply it to corn I believe I get double pay, but at the expense of the next crop. Norman Little. *Columbia, Ct.*


J.R. PAGE DEL. S.F. BAKER ENGR.

BRIGHT EYES V—Owned by C. K. Ward, Leroy, Genesee Co., N. Y.

Pedigree.—Red Roan, calved March 28, 1855. Bred by S. P. Chapman, Esq., Mount Pleasant Farm, Clockville, Madison Co., N. Y. Got by first prize Bull Halton, (11552) Dam [Bright Eyes, 3d,] (imported by Messrs. Vail and Chapman in 1853,) by Earl Derby (10177.)—g. d. [Bright Eyes, 2d] by Lord George Bentinck (1317)—gr. g. d. [Bright Eyes] by Conqueror, (2885)—gr. gr. g. d. ——— by a Son of Pearl, (65)—gr. gr. gr. g. d. ——— by Mason's Son of Comet, (155)—gr. gr. gr. gr. g. d. ——— by Wellington, (683.)

"Bright Eyes, 5th" is in calf to Mr. Chapman's first prize Bull Duke of Oxford, bred by Col. L. G. Morris of Fordham, N. Y., sired by the Duchess bull Duke of Gloster, (11382,) dam, Oxford 17, &c., &c. (We shall soon publish a cut of Duke of Oxford.)

Mr. Ward is becoming quite celebrated as a breeder of fine stock, and the addition of this fine animal to his herd (as well as the heifer "Fancy," purchased of Mr. C. at the same time) cannot prove otherwise than a great acquisition.

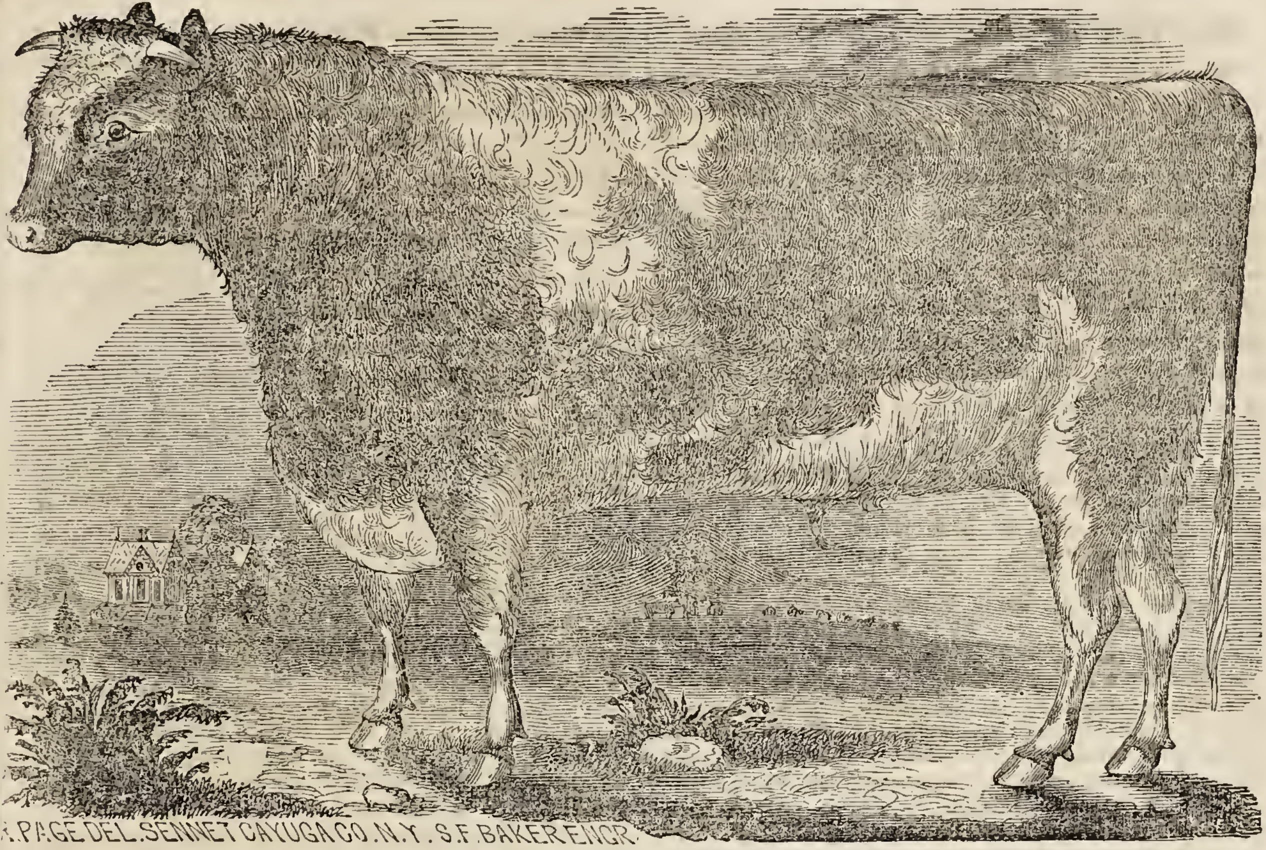
Feeding and Weaning Calves.

It is a practice with some, perhaps many, to feed calves, even at the earliest age, only twice a day. This has always appeared to us, not only as cruel, but as unnatural. It seems so utterly at variance with the manifest wants and instincts of the young of other animals, those of the human race included, and so opposed to the mode adopted by Nature in supplying food to lambs, foals, &c., as to convince us that it must be injurious as well as cruel and unnatural. We have no doubt that death and also diseases that may not terminate fatally, are often caused by the overloading of the stomach, which is the natural consequence of fasting too long. The practice of feeding very young calves only twice a day is too manifest an infraction of the instincts implanted by Nature, which lead the young of all animals to partake of the food provided for them, frequently and in small quantities, to be indulged in without pernicious and destructive consequences.

There are considerations of various kinds, therefore, calculated to influence persons of different dispositions and characters, and calling upon all for a reform in the feeding of very young calves. Those who care little or nothing about the discomfort of their calves, may be moved to this needed reform by the obvious danger of loss of property by their disease or death. The very least that should be done in the way of reform is to feed *three times a day*, morning, noon, and night. When a calf is fed three times a day, a quart and a half to three quarts of new milk will be sufficient during the first two or three weeks at each meal, and the danger of overloading the stomach will thus be avoided.

The change from new milk to other kinds of food, should be made more gradually than is the practice with some. Sudden and violent changes are always dangerous, and not unfrequently productive of disease and even death. New milk should be allowed for three weeks at least. The danger from overloading the stomach or disordering the system is much greater with skimmed milk or other substances than with new milk. But this danger may be avoided by making the change in the food, from new milk to some substitute for it very gradual. The philosophy of this matter is well set forth by Mr. D. J. Browne, in the first article of the last Ag. Report from the Patent Office. It is therein shown to the eye by the aid of wood cuts, that the fourth stomach is much larger in a calf than all the other three, being the only one which is used while fed on milk. The others increase in size as more solid food is supplied, and are unprepared, all at once, to perform their proper functions. This, briefly stated, is one reason why a calf should not be suddenly changed from a diet of milk to one of more solid materials, as disease or an arrest of growth must necessarily follow.

Another reason why a change from new to skimmed milk should not be suddenly made is, that the latter has been deprived of nearly all its nutritive qualities. One who was very successful in weaning calves, fed them first with new milk, and then with skim-milk and meal, the latter supplying the nutritive matters abstracted by the butter and casein of the cream.


A. PAGE DEL. SENNET CAYUGA CO. N.Y. S.F. BAKER ENGR.

SHORT-HORN BULL "DOUBLE DUKE,"

Bred by J. M. SHERWOOD, Esq , and owned by CHARLES P. WOOD, Auburn, N. Y. Dropped June 6th, 1855. Color, Roan. Got by 3d Duke of Cambridge, 5941—Dam, Red Rose 5th by 3d Duke of Cambridge, 5941—2d Dam, Red Rose 2d, by Napier, 6238—3d Dam, Tube Rose, by South Durham, 5281—4th Dam, Rose Ann, by Bellerophon, 3119—5th Dam, Rosette, by Belvidere, 1706—6th Dam, Red Rose, by Waterloo. 2816—7th Dam, Moss Rose, by Baron, 54—8th Dam, Angelina, by Phenomenon, 491—9th Dam, Anna Boleyn, by Favorite, 252—10th Dam, Princess, by Favorite, 252—11th Dam, Bright Eyes, by Favorite, 252—12th Dam, Bright Eyes, (bred by Alex. Hall,) by Hubbuck, 319—13th Dam, Bright Eyes, by Snowden Bull, 612—14th Dam, Beauty, (bred by Thomas Hall,) by Masterman Bull, 422—15th Dam, Duchess of Athol, by Harrison Bull, 292—16th Dam, Tripes, (bred by Mr. Pickering,) by Studley Bull, 626—17th Dam bred by Mr. Stephenson, of Kelton, in the year 1739

Wolf Teeth in Horses.

MESSRS. EDITORS—I have recently noticed an article in THE CULTIVATOR, on the subject of Wolf Teeth in Horses. I have had some experience in this matter, and here offer you the result of my observations. I had a valuable young horse who exhibited evidence of disease in one eye. My first impression was he had got some hay seed or something of the kind in his eye. The main symptom was running at the eye, and while affected in this way, he was unusually restless. I consulted with my neighbors, and was told that he had a wolf tooth, and unless removed it would make him blind ; I then consulted several authors on the subject of horses, only one of whom mentioned this disease, and he mentioned it merely to ridicule the idea that a wolf tooth would affect the sight of the horse. I accordingly neglected to do anything about it until it was too late. I had it taken out at last, but the horse lost his eye. On another horse taken in the same manner, I had the tooth removed in season, when the running at the eye ceased, and the sight became perfect as before. These are facts that ought to be known, for our writers on the horse and his diseases, are either silent on this subject, or what is worse, only allude to it in such a manner as to lead us into error. A large proportion of the blindness among our horses is, in my opinion, owing to the presence of wolf teeth, which could have been removed with very little trouble, and the eye saved. I hope the readers of the Cultivator and the Country Gentleman will not have to learn so dear a lesson on this subject as experience has taught me. A. M. WILLIAMS. *Fayetteville, N. Y.*

Productive Sheep.

MESSRS. EDITORS—In a recent number of the Co. Gent. I notice a communication from Mr. HOLMES, setting forth the good qualities of his Tartar or Chinese sheep. We have a kind (they can hardly be called a breed) known here as Natives. They are large, coarse wool, and very prolific.

One of my neighbors had, two years ago, a ewe that brought him two lambs. *Last spring* she had four ; and one of the twins of the year previous had three, and the other two, making nine lambs from the three ewes, or eleven from the one ewe in two years. Can Mr. Holmes, or any other breeder, beat this ? S. S. CLARKE. *West Alburgh, Vt., May 1st*, 1857.

Remedy for Sweney.

In the Rural American a correspondent says sweney in horses is not a complaint seated in the shoulder, but is caused by some disease elsewhere. From my experience I think otherwise. I have a horse which was lame, and getting lamer for upwards of two years, till it became unpleasant to drive him off of a walk. A secret mixture given me—(formed, I judge, principally of stimulating or irritating oils)—I had rubbed on the place daily, and omitted for two or three days when the part became tender, and lard rubbed on instead, to prevent the hair coming off ; then the irritant renewed. In about three weeks the horse was cured, and is free from lameness. W. T. L.

Eight Years' Experience with the Water Ram.

MESSRS. LUTHER TUCKER & SON—I have had some experience with a *Water Ram*, and for the benefit of those who inquire in regard to them I give it in detail.

I have a Ram manufactured by W. & B. Douglas of Middletown, Conn.; size, No. 4. It has been in operation more than eight years, and is one of the greatest labor-saving machines I have on the farm. The drive pipe is 1½ inch calibre and 30 feet long. The height of spring from Ram is 2 10-12 feet. The discharge pipe is half an inch calibre, and about 18 rods long. Height of water discharged from Ram, 18 feet. The quantity of water discharged is 16 gallons per hour, or 384 gallons per day. I have a branch, so that I have it at both house and barn. By it I have watered seventeen cattle and two horses the past winter, and I presume there is enough runs to water three times the above number.

The Ram cost $12 eight years since, and the drive pipe cost, I think, about $4, and the discharge pipe 83 cents per rod. The expense of repairs for the eight years has been $3.50, beside putting in new valves to the air-chamber two or three times, they being of leather. This does not require great skill or mechanism.

The quantity of water discharged by a Water Ram is in proportion to the fall of water from spring to Ram, and the height the water is to be raised. Therefore if my drive pipe had a fall of four feet to Ram, the quantity of water discharged would be much greater. On the other hand, if the height of water to be raised was twenty-seven feet, the quantity of water discharged would be much less. I think the quantity of water discharged by Ram is six or seven times greater than that from small pipe. The piston-rod can be adjusted so that the Ram will take more or less water; therefore it will operate through the dryest seasons. JAS. CHILDS. *Deerfield, Mass.*

Management of Stable Manure.

EDITORS OF CO. GENTLEMAN—I have read with pleasure the several articles in your paper upon the subject of manures and their application; but none of them quite hit my case. I use all of my manure for raising corn, and apply it with reference to the present crop entirely—(as I have found by long experience that if I can get one *good* crop from a piece of land, another *good* crop is sure to follow)—therefore I put it all (or nearly so) in the hole.

Now what I want is some way to manufacture my stable manure into some substance which I can easily cart from one to three miles, and which, when put in the hill for corn, will give it an early start. I find no difficulty about my corn filling out if I can only get it started early. My plan has been this: I cart no manure from my barn-yard in the spring, but let it lie till fall. During summer I cart in at leisure times, Peat, Muck, Clay, Loam, Sod, earth, or any other substance easily obtained, to mix with the manure—yard my cows on it and dig over if necessary. In the fall (say Nov.) scrape all up clean, and cart outside the yard, and put it in a long pile, say 12 or 15 feet wide, 3 or 4 feet high, and as long as necessary.

I never throw any manure from my stables into the barn-yard, either summer or winter; but my barn is so built that all my manure made by horned cattle and horses, goes into my hog-pen, and lies there under cover till spring. I then draw it out, and put it on top of my pile of barn-yard manure, (which by the way is nearly all earth). I then dig over the whole and mix thoroughly. I also mix in my ashes and a few bushels of plaster Paris; and the manure having been worked over by the hogs, will heat enough to warm the whole mass. After lying from first of April till planting time it is ready for use. But it is very heavy, and a great job to get it to its place, say two miles or more.

If any of your correspondents will inform me of some other way to make my corn start early without carting two or three tons of earth per acre, they will do me a great favor. I have tried guano, and it does wonders on sandy land, but it does not answer my purpose on cold heavy land. B. C.

Clover Seed Cleaner.

MESSRS. EDITORS—I received a letter a few days since from D. D. MANLY of Tennessee, asking several questions about Messrs. T. Church & Co.'s Clover Cleaner and raising clover seed, which he wished me to answer, either privately or through THE CULTIVATOR, and with your permission I will answer them through your paper, and hope that others who have more experience in raising seed, will take pleasure in giving what light they can on the subject.

1. How are those machines operated—by horse or water power? I use them with a two-horse power, and clean from four to seven bushels per day. I have cleaned eight bushels in one afternoon, after plowing with my team in the forenoon.

2. Are those machines likely to be worn out soon? If they are properly tended, they will last several years.

3. Is cleaning clover seed a difficult or an easy process? It is not difficult for a person that is acquainted with machinery—all that is necessary is to give the machines proper motion. It requires two hands to tend it—one to shovel in the chaff, and the other to rake it away and keep the chaff convenient for the one that shovels in. The cleaner the straw is raked out the less motion it requires to fit the seed for market. It is necessary to run it through a fanning mill by hand.

4. At what precise stage of the crop should operations be commenced? I don't know as I can answer this question more satisfactorily than to inform you how I manage to raise seed. I generally pasture my clover till about the tenth of June. The evener it is fed down the better, as it will ripen more evenly. It generally pays to sow on plaster as soon as the stock is taken out. When ripe, (I let it stand till most of the heads turn brown,) I gather it into my barn, and thrash and clean at my leisure, or as circumstances may require.

5. What is your estimate of the amount of clover seed on an acre of good clover? About three bushels. JAMES HARROWAY. *Richmondville, Schoharie Co.*

Experiments with Potatoes.

EDS. CULT. AND CO. GENT.—Thinking you might feel a little interested in an experiment which I tried last summer, I take the liberty of sending you the result.

On the 27th of May I planted two rows of potatoes, 27 hills in each row, side by side, and gave neither the advantage of extra soil or culture.

I planted as follows:

72 potatoes in 24 hills, weighing 1 ℔ 10 oz
34 " " " 5 ℔s. 5 oz.

Nov. 24th dug as follows:

From 72 potatoes, dug 368, weighing 48¼ pounds.
From 24 potatoes. dug 502, weighing 68 pounds.

I tried this experiment to satisfy myself about the old saying, that "small potatoes are as good to plant as large ones," and it turned out just as I supposed it would, in favor of the large seed. H. H. GUILD. *Milton, Conn.*

Agriculture and other Pursuits.

Some time ago we chanced to meet with the assertion—where we should have least expected it—in the Transactions of an Agricultural Society, that "Agricultural Editors, and Professors in the enjoyment of salaries, are almost the only men who think farming profitable." We quoted it with some brief comments, (p. 48, vol. ix, Co. Gent.) and it afterwards (p. 97) became the subject of a communication from a Vermont farmer, who gave the "facts and figures" to show its incorrectness. Subsequently a "Letter from an Octogenarian," and another from a correspondent in New-Jersey (p. 210) elicited further remarks on the same subject—the "profits of farming." We now have before us a second article from our New-Jersey friend, (*J. W. L.;*) also one—the publication of which has been accidentally deferred—from J. N. Bagg of West Springfield, (Mass.) Mr. B., as it appears, was the author of the sentiment quoted above, and he is still inclined to support it. In remarking as briefly as possible upon some points in his reply which seem to demand it, our only desire is to place the subject on its *real* merits; perhaps our correspondent, if a little more conversant with the "salaries" and general "profits" of "Agricultural Editors," would find in them less inducement than he supposes to exaggerate or mistate the case.

The first paragraph of Mr. Bagg's communication is as follows:

"While I yield to no man in love of agricultural pursuits, and a *desire to make it profitable*, I cannot shut my eyes to the fact, *that it does not generally pay.* I know this doctrine is unpopular and contrary to our wishes, but this does not alter the fact. There is a great deal of *loose* talk now-a-days upon agriculture. We hear of farmers getting rich and tradesmen poor; of mammoth crops and monstrous prices, but little is said of the thousands of farmers who barely earn a livelihood for themselves and families, and of the sterile acres that reluctantly yield their meagre fruits. Probably seven-eighths of the agricultural reading of the present day is humbug, and will not stand the test of experiment. Is not this the reason why book-farming in some quarters is so loudly decried?"

Now our correspondent has most assuredly here, as well as in all his article, fallen into the very error he so much deprecates—that of "loose writing," a lack of "sound credible facts and figures," which characterizes, he says, "seven-eighths of our agricultural reading." The files of our papers for a quarter of a century, present cases which no reasonable man will doubt, to *prove* the "profits of agriculture;" we have recently appealed to the acquaintance of our readers with their own townspeople, whether Farming has not often been both the basis and the substance of comfortable fortunes, within their personal knowledge. We have before us—not only in several instances privately communicated testimony, but also the evidence of printed, well attested and unquestionable reports, to establish indisputably, *first*, that a farm *has been* often made to yield annual returns, equivalent in a course of years to moderate wealth, and *second*, that all that is necessary to educe such a result in the case of "thousands of farmers," is the exercise by them of similar intelligence, and the use of similar means. It is our part, and has always been the object of our papers, to place these facts before our readers everywhere—to define and circulate these means—to call into action the requisite intelligence. In doing this we have ever been actuated by a wholesome fear of "humbug," and fully sensible that no cause can be permanently advanced by exaggerating its merits. And the "Agricultural reading of the present day," which without immodesty we may claim some share in eliciting from its authors, and in popularizing with its readers, is a large portion of it, made up of the actual experience of farmers and its results—we grant without much system, and sometimes based on striking errors of fact and judgment, but at the same time such as to lead those under whose eye it falls, to *think* of their own practice and improve it, first perhaps to question, but ere long to emulate the success of others. The majority of this "reading" is by no means that which has its source from the pens of "professors" or "agricultural editors." Treatises in in book form constitute as yet but a small part of it—that which numbers its readers by tons of thousands comes from farmers themselves, by degrees is gaining credence with them, and leading them to act with more of the skill and forethought essential to success in every other pursuit, but which they have too generally regarded as wholly useless, or merely "humbug," in Agriculture. "Book-farming" *is* becoming an obsolete term—it may be slowly—but we can but fear far more slowly from such thoughtless aspersions as those of our correspondent. So far from its being an object to write in favor of the profits of agriculture, in order to be on the "popular" side, according to his showing this has been the unpopular side; for if the "meagre fruits reluctantly yielded by the sterile acres" of "seven-eighths" of our farmers only brought them a "bare livelihood"—if, as he says, the "mammoth crops and monstrous prices" of which we hear, are all "gammon," assertions to the contrary would lose at once every claim to credence, and be equally destitute of popularity and truth.

But even allowing the fact we do not now question, that with multitudes of farmers no more than a livelihood is the fruit of all their industry, we are still confronted with the other as well established fact, that *some* have been far more successful, and that without peculiar "luck" or any very extraordinary natural endowments. What they have done, there is an open path for others to accomplish as well, and while they have done it, it is a baseless insinuation that "every one knows no money can be made in farming."

But Mr. Bagg goes on to define a Farmer as "one who supports himself and family *solely* by the practice of Agriculture," and adds:

"A hybrid animal is not '*thorough-bred;*' a cattle importer, a Horse-jockey, a Distiller, a Tobacconist, or a Speculator, are not *full-blooded farmers.* I know men who combine other business with farming, and who thrive. The Clergyman, Lawyer, Doctor, Editor, Mechanic and Butcher, often do this. But I have yet to know a man, who, by the *single* practice of Agriculture, and the *simple* sale of the crops he raises, has paid for a farm, supported a family, and provided a competence for age. There may be such cases, but my experience among the fertile meadows of the Connecticut River, for a third of a century, does not suggest one."

We fear our correspondent will not be thanked by the farmers of the Connecticut Valley for speaking so confidently; they will say at once that his experience must be exceedingly limited or his memory very defective. The operations of the farm, in all its departments—the growth of grain and grass and roots, and their sale either in bulk, or after conversion into fat stock or dairy products; the breeding of domestic animals; the sale of fruits and kitchen vegetables, are all legitimately and purely branches of Agriculture. By a just combination of them, according to locality and circumstances; by such a system as shall maintain and improve the soil, those who see wheat quoted at from a dollar and a quarter to a dollar and a half per bushel, beef at 11 to 14 cts. a pound at wholesale, butter at from 25 to 30 cts., potatoes at $3 to $4 a barrel; apples and every other fruit that grows, at prices almost fabulous, will be hard to convince of the impossibility of the farmer's laying the foundation of a competence. After accumulation is begun, careful investments will of course increase it, but that does not the less make it the fruit of good, honest agricultural labor. We are loth to believe there are no such instances within the knowledge of our friend. And so far from those being most successful who combine some other pursuit with that of agriculture, *our* experience leads us to a different impression, except in cases in which their time has been so little occupied with other occupations, that they have had the opportunity of bringing to Agriculture the habits of business application and thought, elsewhere learnt, and the necessity of which we are doing our utmost to impress upon farmers generally. A professional man who goes into farming as a *luxury*, is apt to find it a very expensive one; if he goes into it to *make money*, why shall not the fardo as much?

We defer until another time, some remarks upon the remainder of Mr. Bagg's communication.

Transportation Protector.

The inventor of this contrivance for the protection of packages while in course of transportation, Mr. Henry B. Osgood of Whitinsville, Mass., has sent us a model, which may be seen at this office. A bouquet was enclosed to show the safety ensured by the suspension of the case by springs within a frame, as seen below, which reached us in excellent condition.

The following explanatory statement is from the pen of Mr. Osgood:—

My spring frame for packages, or Transportation Protector, for which letters Patent were granted to me on the 4th of Nov. last, is designed to protect fruits, and such things as are easily broken, or damaged by being bruised, during the process of transportation, storing and handling; and more effectually and easily than can be done by the ordinary means. In Fig. 1 of the drawings, A is a basket, or may be a box, or any other suitable vessel or receptacle to contain the articles to be transported; B is the protector frame, and C, is the elastic fastenings by means of which the vesssel A is combined with the frame B, so that in whatever position (when secured by a cover) they may be tumbled upon the ground, floor, or vehicle of conveyance, the vessel A, with its contents, is supported within the protector frame; the frame B being enough larger than A to project on all sides, so as to receive whatever shock or jar there may be; and the elastic fastenings C prevent the shocks or jars being transmitted to the vessel A; these elastic fastenings may be rubber bands, or of any other convenient form or material.

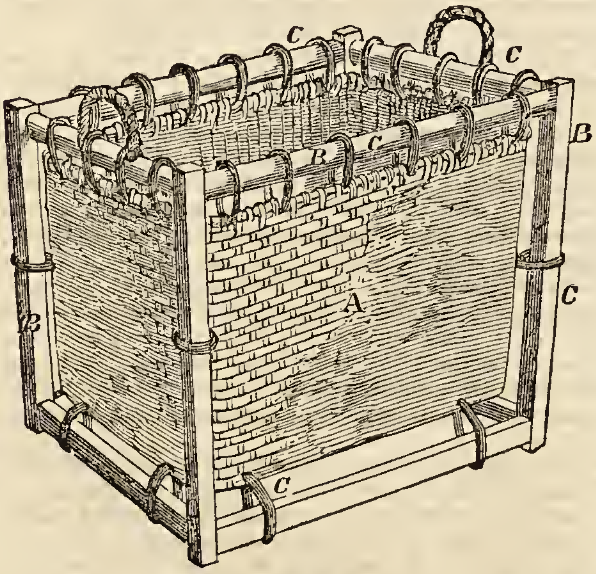


Fig. 1.

The form which I suppose will be most convenient, is to have the vessel A cubical, or nearly so. If the load to be transported is very easily bruised, as strawberries, raspberries, and the like,—where lower ones are liable to be crushed by the weight of those above—they should be put in shallow boxes, as shown in Fig. 2, which are made to fit into the cubical one, and which will hold several of them. These shallow boxes may be of 1, 2, 3, 4 quarts each, or any other convenient size. When the load to be used does not require the shallow boxes, the protector may be used without them. For bouquets and other light articles, I propose to make paper boxes, with bands of tape looped at suitable places to receive the elastic fastenings.

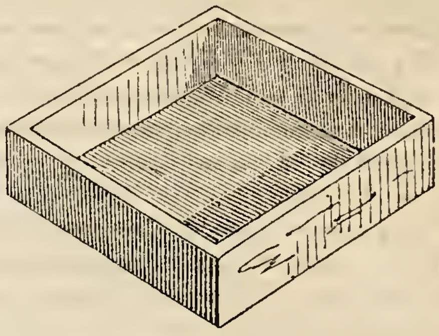


Fig. 2.

Melon Bugs.

Now that there is so small a prospect of a good supply of the more tender and delicate autumn fruits the present season, we would recommend our readers to lay in for an abundant crop of melons, wherever there is any kind of security from the depredations of those pests of society, fruit-thieves.

Many plant melons on good soil, but do not succeed on account of the melon bugs. There are various remedies, and success requires the prompt use of some of them. An old-fashioned, laborious, but sure way, is to examine the plants without omission two or three times a day, and destroy all the bugs that are found. Dusting with soot, guano, tobacco, snuff, ashes, lime, &c., have all been tried, with but partial success. Walls, of brick set on edge, have been made round each hill, and sometimes a pane of glass laid across the top, has been added; and if closely and carefully applied, these answer a good purpose, but they are liable to become quickly knocked out of place. Frames covered with gauze are also efficient, but the frames are not so easily made as are desirable, nor are they easily kept from year to year without injury. On the whole, we prefer the oil-cloth box, which has been used for some years, but may be unknown to most of our readers.

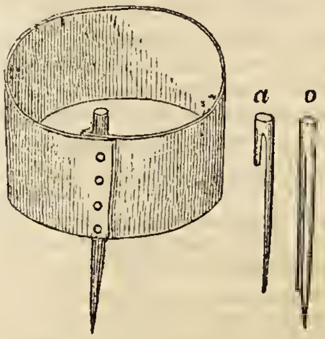


Fig. 1.

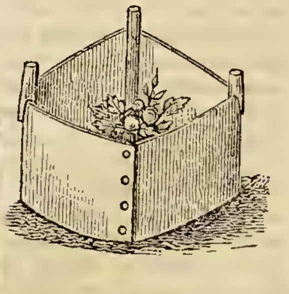


Fig. 2.

A piece of oil-cloth, (the stiffer the better,) is cut into strips two or three feet long, and six or eight inches wide. Each piece is bent around in the form of a hoop, and the meeting ends or edges are fastened by carpet tacks to a sharp stick over a foot long, as shown in Fig. 1. For each of these, three additional sticks are provided, with a small fork like *a*, or a sawed slit like *b*. The box is then placed on the ground around each hill of melons, by thrusting the sharp stick into the earth, and then stretching it into a square form, as in Fig. 2, by means of the three additional sticks, which by the slit or fork hold it down to its place. By now drawing the earth up against the bottom of the oil-cloth, all entrance of bugs will be excluded, as none will pass in at the top.

As soon as the bug season is over, these boxes are *folded flat*, and laid away securely in a small space, for use another year.

Old oil-cloth carpets, or cast-off carriage curtains, may be used for this purpose, at little or no cost.

Condensed Correspondence.

OREGON.—Extract of a letter from a subscriber in Oregon, dated Oregon City, March 23, 1857: — "Our country is mostly a timbered one, consequently farming is not carried on on a large scale. Orcharding seems to suit the place and people better, and I think will pay better. I crossed the Plains in 1854—settled a new place—planted an orchard last spring, mostly yearlings—some few four years old. The present season I will have considerable fruit on my last year's planting, consisting of apples, pears, peaches, plums, cherries, currants, gooseberries, strawberries, pie plant, &c. I have given the different varieties to show what may be done. I had two yearling plum trees to bear and perfect their fruit, being transplanted also last spring. We train our orchards here on the "dwarf standard" system. Graft plum on peach stocks, most varieties succeeding well—all will succeed by double working. The health of Oregon in general, exceeds any country I have ever lived in. The past winter has been a very wet one, with three weeks of snow on the ground—snow eighteen inches deep in this valley. S. P. GILLILAND.

AMALGAMATION OF POTATOES.—"Hybridizing can be effected only by the impregnation of the blossom of one variety by the pollen of another." This is undoubtedly the case, and the return of the sap to the roots in forming the potatoes, after such impregnation, probably carried with it the spots which were found on the white potatoes. Herewith I forward to you another novelty—a sample of potatoes raised by me from seed-balls of the Mercer stock, supposed to be crossed with the blood beet; they are A No. 1, for eating, and will be shown at the next State Fair—red throughout, and slightly grained—*none for sale.* I have refused $1 a piece for the entire lot, not wishing them to get into speculators' hands. D. L HALSEY. *Victory, N Y.*

TESTIMONY FROM THE SANDWICH ISLANDS ON THE CHESS QUESTION—SMUT—THE WEEVIL.—For the benefit of the believers in the transmutation of wheat into chess, I would say, that for some ten or twelve years after wheat began to be produced in this region, not a particle of chess was seen, the first seeds being pure, and no new seed being introduced in that time. Some five or six years since, oats from Australia were sowed, in which were chess. Afterwards the same ground was sowed to wheat, and the produce used for seed; since which time, there has been no lack of chess, of the tallest kind.

Do your know of any place where smut will run out, except by the use of means to get rid of it? I believe this to be such a place. Two years since some seed wheat was received from California, in which there was abundance of smut. The first year there might be one-tenth as much smut as was sown, the second year I have seen but one smut ball in hundreds of bushels. I shall look with interest for the result of the coming crop.

Can you not give in the "Country Gent.," some information in regard to the weevil, (not *midge*, for that we are not troubled with,) its origin, habits, and a preventive to its depredations after wheat is threshed? We have not succeeded in keeping wheat here six months free from this pest. J. T. GOWER. *Makawao, East Maui, Sand. Islands.*

FINE FAT CATTLE.—Within a few weeks past, two pair of cattle have been brought to this market from the borders of the Connecticut. The first, were raised in Shelburne, near Greenfield, Franklin Co., they were reputed to be 6 or 7 years old. They weighed living, more than 5200 lbs—the largest when dressed weighed 2054 lbs. These were strongly marked with the characteristics of the Durhams. They were slaughtered by Mr. J. Fairfield. Since then, a pair has been brought in from Deerfield, same County, that weighed alive 6000 lbs., and when dressed 4494 lbs. They were reputed to be 8 years old, and *genuine natives*,—slaughtered by Mr Geo. Prescott, being superior beef, both pair. P. *South Danvers, April* 25, 1857.

A GENTLE HINT.—The editor of the Agricultural Department of the Oxford (Me.) Democrat is a great admirer of Professor Mapes, and has for years swallowed all his "hard sayings" with a delightful simplicity. It would seem, however, from his notice of the March no. of the Working Farmer, that his faith in the Professor's infallibility is beginning to waver. He says—"We would suggest to the Professor, whether the leading article in the Working Farmer for March is not rather strong in its tone, in claiming perfect freedom from *error* in all he has written. We think very highly of his honesty and intelligence in agriculture; but his claim of immaculate truth and absolute freedom from errors and mistakes, is rather tall feed for poor mortals. He must remember if such things have not been pointed out and proven on him, this is not sufficient proof that such a thing might not be done, or that he may not have fallen into such things. Nothing is ever gained to a cause or to the individual by claiming *too* much."

BUCKS COUNTY (PA) AG. SOCIETY.—The fourteenth annual meeting of the Bucks County Ag. Society was held at Pineville, on the 16th April, the President, WILLIAM STAVELY, in the chair.

The general business of the Society was transacted with great unanimity and good feeling. The Society is in quite a flourishing condition, and appointed a committee to procure a charter of incorporation. The receipts of the Society for the past year were $1,309.61. The expenditures, principally for premiums, $1,287.02, leaving a balance in the hands of the treasurer of $22.59.

Among the committees appointed was one to attend the United States Agricultural Exhibition to be held in Louisville, Kentucky, in September next, consisting of the following persons: William Stavely, George W. Cunningham, W. T. Rogers, Adrian Cornell, Richard E. Ely.

The time for holding the next annual meeting was fixed for Wednesday, the 23d of September.

The following gentlemen constitute the board of officers for the ensuing year:

President—WM. STAVELY.
Vice-Presidents—Jacob H. Rogers, Hector C. Ivins, Robert Longshore, John Blacksan.
Rec. Sec.—John S. Brown.
Cor. Sec. Edmund G. Harrison.
Treasurer—Jacob Eastburn.

On motion, the thanks of the Society were tendered to the Commissioner of Patents for his attention in forwarding seeds, &c., to the Society.

☞ If you starve your animals, they will be pretty sure to starve you.

Management of Chickens.

Our correspondent, C. C. of Coeymans, N. Y., furnishes a detailed description of a new coop for chickens, which we may briefly state is 4 feet long and 18 inches wide and high. One-third, at one end, has a board bottom, to preserve the chickens from the ill effects of roosting on damp ground—the rest is open to the ground. A partition with door separates the two apartments; and when in the floored part, the coop with chickens may be easily carried from one place to another. A coop quite similar to this, and in some respects superior, is described in the late edition of Bement's book on Poultry. We copy the following valuable suggestions from the communication of our correspondent.

I have found by experience that chickens roosting on the ground wet and cold nights, often contract the gapes, thereby sweeping off whole broods at a time. Old fowls must come to the ground and eat grass and pick worms, or they will grow poor, no matter how much grain they devour. Hence poultry raisers often wonder why hens, confined in coops with board bottoms (especially) and without bottoms, when they cannot be moved without letting out the hen and chickens, and are stuffed with the best Indian meal, grow poor.

With board bottoms the cause is this: they cannot thrive unless they can pick worms and grass, and consequently soon grow poor with no bottomed coops, the guano soon kills the grass, keeps the chickens dirty, makes them lousy, and in cold rains, being wet and nasty, they contract the gapes whereby many of them die. I might here add that gapes and lice kill more chickens than all other causes together, and should, therefore, be most securely guarded against. By shutting the partition door, the chickens may be moved without danger of killing them. If the roosting part is whitewashed inside, and cleaned once a week it will prevent lice; besides, the guano may be put in a proper receptacle and saved—quite an item to one who raises 100 chickens in a year. By moving the coop once a week, groundworms and fresh grass may be secured to the hen, and if the hen is poor at the time of hatching she will soon fat, and in six weeks or two months generally commence to lay; indeed, I have often had them commence laying in the coop whilst with the chickens.

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Plaster a Remedy for Lice on Stock.

Messrs. Editors—Much benefit may be derived by agriculturists or "Country Gentlemen," by changing and interchanging views of their knowledge gained by trials and experiments of minerals and chemicals as fertilizers, and other domestic uses. The fertilizing qualities of plaster or gypsum, are too well known when applied to corn and clover, in increasing their growth, to need comment. But when applied to corn just before it appears above ground, sown broadcast, it answers a double purpose of not only advancing the growth of the crop, but by preventing the mischievous crows from pulling the corn, for they always appear very suspicious of anything that smells like powder.

Plaster also as a remedy for lice on cattle or horses, is among the best I have ever known, used by applying it dry, rubbing it thoroughly in the hair of the animal. I purchased a colt at ten months old for $20, which was afflicted with that kind of vermin; I made one application of plaster, and kept him from my other stock about two weeks, and found no more trouble or difficulty with the insects. When the colt was three years old past, he brought me $120.

In numerous cases it has been used to destroy this pest to beasts, and I have never known the necessity of a second application. Allen Palmer. *Five Corners, N. Y., April*, 1857.

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Steaming Hay.

Messrs. Editors — One of our correspondents in Goshen, Orange Co., who is in the milk business, asks us whether he would get more milk from the same amount of hay by cutting it up and steaming it, than to feed it out as he does now, dry. We wrote him we thought he would increase the amount by so doing one quarter. Will you have the goodness to reply through the Country Gentleman? This is a subject which would interest us. A. N. Wood & Co. *Eaton, N. Y.*

We have no definite experimental knowledge on this subject, and hope those who have made trials, will give us the results. Steaming cannot, of course, increase or diminish the quantity of nutritive matter in hay, but it may render it more digestible, and consequently more valuable, in the same way that grinding and cooking corn, doubles its fattening qualities when fed to swine. On this subject we copy the following from the "Cyclopedia of Agriculture:"

"The process of cooking renders much soluble that would otherwise be imperfectly digested. It removes in some cases what would otherwise be unwholesome; and it renders savory what would otherwise be distasteful. This is illustrated in the effect which it has on mouldy hay or dry straw. In neither case is any nutritiveness added to anything that may be innutritious; if the hay has had half its nutritiveness washed or spoiled out of it by bad harvesting, it will be but 50 per cent. of good hay after steaming, as it was before; the only advantage of steaming, but it is a great one, is, that by means of it this inferior hay is made savory, so that cattle which would not touch it, will now readily consume it. Without steaming, there may be really 50 per cent of a good hay in it; but then, in effect, it is worthless, for the cattle will not eat it. After steaming, there may be only 50 per cent. of a good hay in it; but then, as the stock will now consume it, we are enabled to get 50 per cent. of a good hay out of it."

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Remedy for Cows' Sucking Themselves.

Messrs. Editors—I see in the Country Gentleman of the 23d of April, an inquiry for some preventive against cows sucking themselves, and your remedy as given in cuts Nos. 1 and 2. We will say to Mr. Crowder that if he will draw out the tongue of his cow and lay it on a board, and with a sharp knife split the end apart—say one and a quarter inches—he will have no more trouble on that score. It will trouble his cow a few days in eating, but will soon get well without injury.

Splitting the tongue prevents the power of suction, which alone is obtained by the end of the tongue closing around the teat. It is less expensive than your mode, and permanent. R. Williamson. *Gallatin, Tenn.*

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The Country Gentleman is a welcome visitor each week; he has always something interesting and useful to communicate to us farmers, and he introduces us to your Farmers' Club, where we can hear what the farmers have to say from all parts of our country on various subjects. I value it higher than any paper I receive; I put a stitch in his back the first leisure moment, and see what he has to say, then lay him carefully by. J. W. L.

Inquiries and Answers.

Young Trees in Old Orchards.—Please inform me through the columns of the Cultivator, whether young apple trees can be made to thrive well in an old orchard where the old trees have died out, and how it can best be done; whether any of your correspondents have tried it, and with what success, and oblige A Subscriber. [It is more difficult to make young trees do well in the vacancies of old orchards, than on new ground, for three reasons:—First, the remaining large trees shade them, and prevent a good growth. Secondly, they are not so apt to receive good cultivation in an old orchard. Thirdly, the land has to some extent been exhausted by the previous trees. But by selecting strong and rapidly growing varieties, as the Baldwin, Northern Spy, Sops of Wine, Autumn Strawberry, King, &c., and keeping the whole land well cultivated, they will do well in rather thin orchards. We have often seen the experiment performed, and the above are the results of observation.

Wood Underdrains.—How long will boards an inch or an inch and a quarter thick prove efficient in underdrains? We are just beginning to learn the benefits of underdraining. Stone is not to be had in sufficient quantities, neither can drain tile be procured, so we have to use wood. The plan adopted here, is to lay a rail on each side of the ditch and cover them with boards one or one and a fourth inches thick, and long enough to reach across the ditch and rest on the rails. The usual width of our ditches is 18 inches. R. S. W. *New Ross, Ind.* [Some kinds of wood will last at least ten or twenty times as long as others. If basswood should be used, it would be decayed in less than two years, while good red cedar would perhaps last a hundred. If our correspondent will select the most durable sorts of wood, such for instance as is commonly used for the best posts, the drain may be safely relied on for many years. In the lapse of years, the earth about the channel becomes so compact if of a rather clayey texture, and far removed from the character of quicksand, that the orifice will remain and discharge water, even after the decay of the wood has taken place, provided the orifice is not large and the quantity of water running is moderate or small.]

☞ It would require a large volume, some months labor, and quite an expenditure for engraving, to answer properly and fully the thirty-one questions put to us by a subscriber at Leaksville, Miss., and as most of them relate to matters of science and philosophy, subjects not coming generally within the scope of our journal, we must beg him to look to some other source for information.

Can you inform me how the machine of Messrs. Fairbanks, Wilmot & Co., succeeds in felling trees and cross-cutting timber. Has it proved itself valuable in practice. Wm. Todd. *Clark Co, Mo.* [We have received several inquiries of this kind, but are unable to answer them. Appearances were certainly much in favor of this machine during its operation at the Watertown State Fair. The manufacturers would find it to their interest to let the public hear from them on the subject.]

Herds Grass and Red Top.—I propose seeding down a few acres of low land, and desire to know how red top will succeed with herds grass, and how much of each kind should be used. F. Randall. *Oneida, April 15th*, 1857. [Herds grass (timothy) and red top, both grow with great success on moist mucky land, and doubtless the two together would do well, but we should like to know the actual experience of those who have tried it. The proper quantity would be about half of each sort separately.]

Guano on Tobacco.—I wish to ascertain whether Peruvian Guano may be successfully used in the production of tobacco. Home-made manure is very difficult to obtain here. The soil is a warm gravelly loam. How much, and in what manner should the guano be applied? I wish to apply it liberally. If you will be so kind as to apply, either through the Country Gent., or by letter, you will oblige, O. A. Benton *Leedsville, N. Y.*

Artificial Stone Houses.—I saw in your April Cultivator, a piece—"How to build a Stone House." Your subscribers in this part are desirous of more information about this. They wish to know what kind of lime is used. We think that our stone lime will not do, such as we use to plaster houses. If it will or will not, please inform us. Sewell Wilmarth. *Oakley, Pa.* [The common stone lime is used. The proportions of lime, sand, &c., were given in the article referred to.]

Warts.—Is there any means whereby warts can be driven from the hand? They are not only troublesome, but in fact disgusting. J. C. L. [Tie a thread of sewing silk tightly around the base of the wart, so as nearly to cut into it—in two or three days it will loosen and come off, and a cure will be effected.]

Warts.—Your last Co. Gent. has an inquiry for a cure for warts on horses or cattle. This is I believe a certain cure: If the wart is large, cut close; if small, no cutting is necessary. Then apply potash three or four times, at intervals of two or three days; this will cure either dry or bleeding warts, and unless they are it be very large, leave no scar. P. T. Graves. *Manack, Ala.*

Poultry.—I have a kind of fowl, called by individuals the Downing. They are rather larger than the common kind; mostly speckled black and white, very easy to keep, and first rate layers. Have you any drawings of the Downing, and can you give a description of them. A. Reader [We know of no fowl under this name]

Dwarf Pears.—Please inform me (1.) If the Bartlett and Seckel pears answer well on the quince? also Belle Lucrative. (2.) Would not autumn be the best season for putting out trees here which had been brought from the north? (3.) Will dwarf pear trees generally bear the third year from the bud? J. R. Garlick. *Bruington, P. O., King and Queen Co., Va.* [The Bartlett and Seckel pears often do well on the quince, and sometimes very well. We have never seen finer dwarfs than some very thrifty pyramids of the Bartlett in full bearing. But these are exceptions—as a general rule, we would not recommend them worked in this way. The Bartlett usually bears quite young enough on its own roots, so that there is no reason for increasing this quality by dwarfing; and the Seckel is both small and an early bearer, worked as a standard, or as a pyramid on pear. The Belle Lucrative succeeds well as a dwarf for a few years, but after a while droops.

Autumn would be the best time to procure trees from the north, and they might be set the same season, or *laid in* for spring setting.

Dwarf pears often bear the third year, but there is no certainty on this point. If sufficiently thrifty they usually do not.

The nursery firm at Rochester, named by our correspondent, is honorable and reliable.

Exhaustion of Soils. — The ruinous manner of cropping year after year, exhausting all the properties of the soil necessary to the growth and maturity of crops, will bring a farmer or a state to want. This has been the manner of cultivation in the southern states, I presume, since Sir Walter Raleigh's time. The farms or plantations are too large to reclaim in a few years. Mine is about a medium, 250 acres—75 or 80 in woods, the remainder cleared, in cultivation, and old fields. You see it is a bad chance to do justice to my land in cultivation, and undertake to improve old fields, having but 12 acres in meadow; but I hope largely on advice and hints from your paper respecting manure. How can I collect materials from the woods, my tannery, &c., &c? H. B. S. *Guilford, Co., N. C.*

The Upright Quince.—I have just obtained a small lot of quince stocks for dwarfing the pear on; most of them are the *Angers*, but the balance of my order is made up of what the nurserymen call Rochester uprights, said to have originated, or first brought into notice by Mr. Barry & Co., Rochester. They appear to be a vigorous growing variety, but I know nothing of their fitness for the purpose I want them. Will you be so kind as to give me some information respecting them, through the columns of the Co. Gent. W. Fare. [The *upright* quince is well known in some parts of France, and was introduced mixed with the Angers. It is not equal to the latter for pear stocks, although the great facility with which the cuttings strike root, render it of very easy propagation. We should much prefer the Paris or Angers stock, and would only use the upright for such vigorous sorts as the Angouleme and Louise Bonne of Jersey, budded below ground. Perhaps it should be only used for working the common quince upon.]

Raising Beans.—I wish to know through The Cultivator, the experience of practical farmers as to the result of raising the Navy bean, on wheat stubble after the wheat is taken off, and if that is too late, what is the best time to plant them, and what is the yield per acre. Is there another bean that is a little larger than the Navy bean that is as good? R. *Carbondale, Ill.*

Artificial Stone.—Will you please inform me through the columns of the Co. Gent., of the manner of preparing concrete for the manufacture of artificial stone, and oblige one who heartily wishes "success to improvements." T. L. M. *Surry Co., Va.* [You will find the information asked for on page 131 of the current vol. of the Co. Gent.]

Artificial Stone Houses.—Will our correspondent, J. E. S., answer the following queries, which we find in the Maine Farmer:

Mr. Editor—I noticed a communication from the "Country Gentleman" upon artificial stone for building, in the Farmer, and having a superabundance of material recommended by him, I take the liberty of making a few inquiries.

1st. Will the stone possess sufficient strength for door and window caps?

2d. Will they answer for cellar wall?

3d. What size should the cylinder be in the block?

4th Will boards answer for moulds?

5th. How manage in a story and a half house, to put in the upper floor timbers and roof?

6th. Will a mould less than a foot in width be sufficient for a small house?

7th. What sized stones will be best to mix in?

The lime, I presume, is to be measured before slaking. If the gentleman would answer the above, he will much oblige one who is seriously inclined to try the experiment.

Trespasses on Lands.—*A. C.* The law passed at the last session of the Legislature, entitled "An Act to punish nuisances and malicious trespasses on lands," is confined, in its application, to lots situated within the limits of "any corporated city or village," and does not apply to farm lands.

Blinds for Horses.—In the Co. Gent. of Feb. 26th, I noticed an article headed "Relic of Barbarism," using blinds on the bridle of horses. Perhaps the writer is an experienced horseman, and can give other reasons why it is barbarous to use blinds. I was bred a horseman, and have driven horses in almost all ways, and can give a great many reasons why it is best to drive with blinds. A colt can be learnt to drive with a bushel basket tied to his tail; still he might be frightened at a locomotive. Any horse that will drive well without blinds will drive well with, and a great many drive well with, that drive bad without. If you want your horse looking about the fields as you drive along the road, or going along with his neck half bent to see what is coming behind, and occasionally make a blunder and fall down, drive without blinds or check. As for you horse being less liable to frights and shearing, that is all a mistake. A. B., Jr. *Bristol, Conn.*

Washing Fluid.—A writer says in your April No.—"If you think best, say in your paper that washing fluid containing spirits of turpentine should never be used." What is his reason for not using it? It may be all very well not to use it—but why not? Wm. McKinley. *Huntley Grove, Ill.*

Madder.—Will any of your correspondents please to inform me through the columns of the Country Gentleman, the process of cultivating madder—also what kind of soil is most suitable for it—what is its value, and is there a ready market. The desired information will much oblige a young farmer. J. B.

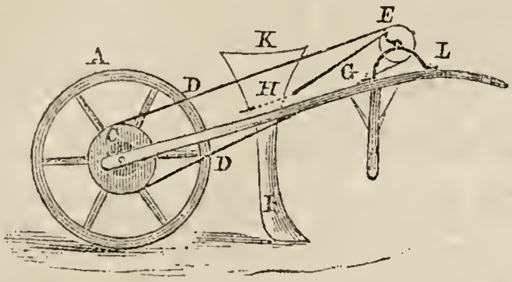
Home-Made Seed Planter.

[We insert the following with the hope that it may be of use to those in remote localities, where good and well made seed planters are not offered for sale—although there appears to be a disadvantage in the operator drawing the machine behind him, and not seeing the work.]

Messrs. Editors—Seeing many inquiries in agricultural papers for seed planters, I give you a short description of one which may be cheaply and quickly made, and attached to a common wheel barrow, thereby avoiding unnecessary expense. The materials are two extra wheels—a leather band about five feet long, a short iron crank, several pieces of hoop iron, a piece for each different size of seeds.

Make a wooden wheel one foot in diameter and fasten on the axle of the wheel of the wheel barrow; then make a foot two feet long of hard wood, and with a match plane make a groove for the seed to pass into the ground; at the top of this construct a box of suitable size for the seed, and fasten it firmly on the wheel barrow, closely as possible to the main wheel, with foot pointing to the back end of the barrow. Then two and a half feet from the small wheel, the machinery must be fastened to move the iron distributor. This consists of quarter inch iron rod, with a small wooden wheel three inches in diameter, fastened on the same side as the wooden wheel attached to the barrow wheel, and the opposite end of the rod bent in the shape of a crank to move the distributor. Now take a piece of wood about two feet long, bore a hole suitable to admit the crank thus formed, and connect it with the distributor by sawing a slit in it, and boring a hole in it opposite the way in which it is sawed, and then make a hole in the end of the distributor to match the one in the piece of wood; then put a nail through these parts, thus connecting them, and the work is nearly finished.

A. is the barrow wheel. C. the wheel which is fastened to the axle of the barrow wheel and revolves with it, turning all the machinery, being one foot in diameter. D. D. the band connecting the machine wheel C. with the crank wheel E., which runs through the raised support L., and turning the crank which pushes the distributing rod to and fro in its revolutions, keeping the distributor H. passing through the box K., thereby letting the seeds fall through the holes made in the distributor, passing through the foot I. into the ground. Any person can place the holes at such distances as he wishes, or distribute the seed by having a number of distributors with holes at different distances.



Carrots, turnips, broom corn, &c., may, by having suitable distributors, be planted with this. The operator must take hold like to a common barrow, and proceed backwards, keeping the foot I. in the ground at proper depth, and the wheel A. coming in the place of the foot I. will cover the seed and leave a smooth mark over the rows. Many seeds should have the ground packed over them in order to insure vegetation in time of drouth; among these beets, carrots and parnips more especially. The facility and speed with which this machine plants, covers and packs the ground over the rows, is unsurpassed. To regulate the distance between the rows, and also to insure straight rows, the ground should be first marked, as follows: Take a piece of plank three inches wide, and long enough to mark four rows; place four wooden pins at distances equal to the distances you wish between the rows; then fasten two handles, one at each end about six feet long, so that the ends will be at convenient distances to hold, and then begin at one end of the field marking the course of the rows, and keeping all subsequent ones like the first, by letting the first tooth of the marker follow the outside row, thus completing three rows every time the operator crosses the piece. Thus it may be seen at a glance that an acre may be very expeditiously and uniformly marked, and easily followed by the planter.

This I believe to be the quickest, best, and cheapest way to plant beets, carrots, parsnips, broom cron, Indian corn, turnips, &c., ever tried. The planter is also the cheapest and best in my opinion of any made. C. C. *Coeymans, N. Y., April*, 1857.

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Wheat Crop in Illinois—Corn—Growth of the State, &c.—I wrote you on the 7th of April concerning the wheat crop in this state, and now after carefully watching its development from day to day, I am prepared to stand firmly by the opinion then expressed—namely: "*that in Illinois the wheat crop of* 1857 *promises to exceed that of* 1856, *by twenty-five per cent.*" The first opinion was based upon facts that were facts, and observations that were intelligent, and need not be repeated.

Since I wrote we have experienced some terrible weather, and the season is very backward, but the cold and wet have had a wonderfully beneficial influence on winter wheat, and since the first of this month a very great change has taken place in its appearance, and the croaking so rife a month since, has died away to the faintest echo. Most of the spring wheat sown having had the advantage of a sharp frost or two, immediately after sowing, is coming forward beautifully, and the generous rains of the last day or two is all that will be absolutely needed to secure the wheat crop in this part of the state.

Most farmers are now ready to plant Indian corn, but the ground is rather wet; however, a couple of weeks of favorable weather will enable them to finish this business. After the corn is once well up, one good soaking rain will insure this crop, so favourable is our deep, rich, mellow soil to the growth of Indian corn, and indeed every kind of grain, except perhaps oats: for this grain the soil is too rich. As paradoxical as it may appear, I believe there is no soil in the world that will produce a crop with so little or so much rain, as the central portion of Illinois.

One process in the cultivation of Indian corn obtains here among our best farmers, which may be new to some of your readers. It is this. After the young corn is so far advanced out of the ground as to be clearly distinguishable in rows, the whole field is thoroughly harrowed. This operation levels down inequalities of surface, buries and kills the first crop of weeds, and leaves the young grain master of the field. It may be suggested that the harrowing that buries and kills the weeds, would bury and kill the springing grain, also, or at least disturb the integrity of the hills and symmetry of the rows, and leave the field in utter disorder. Such is not the case as shown by experience—in this, as in almost everything we have to learn, our best teacher.

Peach trees are not fairly in blossom, the prairies have only a faint tinge of green except in the sloughs, the timber of Big Grove and that which skirts the Salt Fork of the Vermillion and East Fork of the Sangammon scarcely show the freshening touch of spring, and the season is three weeks nearly, behind; but we have usually a fall to suit the spring, and compensation for everything.

There were 34,000 bushels of wheat forwarded from this station last year and 135,000 bushels corn, and good judges estimate the wheat to go forward this year will come up to 100,000 bushels, and corn 250,000 bushels, of the crop of 1857. The County assessor tells me there were in his opinion, more acres of prairie broken up last year in Champaign County, than the whole quantity previously under cultivation. These facts to measure the growth of Central Illinois by. B. F. J. *West Urbana, Champaign Co., Illinois, May* 14, 1857.

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America *vs.* England on Horses.—We are pleased to see that *Lecomte*, *Pryor* and *Prioress*, the three gallant coursers which were sent from this country last fall, to confront the renowned champions of the English turf upon their own ground, and at their own terms, *are entered for the great Goodwood cup!* More than this, Gilpatrick—who rode *Lexington* in his famous race with *Lecomte*, and when he made the still more famous and never equalled time of four miles in 7:19¾—and with him several other American jockeys, are to be present, so that the horses will be ridden in American style, and as they have been trained. The American horses are said to be in good condition, and we trust they may keep it until the eventful 29th of July. The following are the conditions of the race, according to *Ruff's Guide*, which will affect them:

> The Goodwood Cup, value $1,500, the surplus, if any, to be paid to the winner in money, a subscription of $100 each, with $500 added by the Racing Fund; TWO MILES AND A HALF; three year olds to carry 105 lbs.; four year olds 127 lbs; five year olds 135 lbs; six and aged 138 lbs.; mares allowed 4 lbs., geldings 7 lbs., horses, &c., got by Arabian, Turkish, or Persian stallions, or out of Arabian, Turkish, or Persian mares, allowed 18 lbs.; or if both, 36 lbs.; horses, &c., bred in America, or on the continent of Europe, allowed 14 lbs. The second horse receives $500 out of the stakes, and the third $250. The winner to pay $50 to the Judge.

Under these conditions, *Lecomte* will carry 124 lbs., *Pryor* 121 lbs., and *Prioress* 109 lbs; four pounds being allowed to *Prioress* as a mare. It will be seen therefore, that *Lecomte* and *Prior* will run at an advantage of 14 pounds less than English horses of the same age, and *Prioress* 18 lbs. less.

New-York State Fair Grounds.—The May meeting of the Executive Committee of the N. Y. State Ag. Society was held at Buffalo, when the grounds for holding the Fair were selected. The place chosen, comprising what is known as the Fort grounds and four adjoining blocks, is a very favorable one, located on the Niagara river, about a mile below the centre of the city.

Notes for the Month.

THE DEVONS AT "THE MEADOWS."—The friends of this excellent and serviceable breed should make no calculations this spring without reference to Mr. WAINWRIGHT's catalogue. A notice of his sale, which is set down for June 17th, has appeared in our columns for some weeks past, and we intended before this to have mentioned, as they deserve, the inducements offered. We doubt if Mr. W.'s herd is excelled in America, and as this is his first public sale, he is enabled to present a rare collection from the best stock, both imported and of his own raising. His long experience and skillful breeding will meet, we confidently trust, the encouragement they, as well as the animals themselves, deserve, and believe that those engaged in raising or using North Devons, in all parts of the country, will find it also a matter of their own personal concern not to let the present opportunity escape them. The locality of Mr. W.'s place renders it easy of access, and it will be perceived that he invites the visits of parties interested, at any time.

FEVER AND AGUE PREVENTED BY PLANTS.—Lieut. Maury proposes to prevent intermittent fever, by purifying the air in sickly places of its miasm, by means of broad belts of large leaved plants, among which the sunflower is supposed to be especially efficacious. He thinks a belt of sunflowers, forty-five feet wide, around the Washington Observatory, preserved the men employed there from ague, while in other similar localities, not protected by a belt of sunflowers, the inhabitants suffered severely. We have a high respect for Lieut. Maury and greatly appreciate his scientific achievements, but we can hardly understand how a narrow belt of plants, is to strain the air of its poison, by simply passing over it. The air of a very gentle breeze moves six or seven feet in a second, and would pass over a belt of leaves a hundred feet wide in a few seconds; and it strikes us that a very small portion of a half mile of miasmatic air would ever touch the leaves in so brief a transit. The purifying power of vegetation is well known to chemists; but air cannot be cleansed by leaves unless it comes into actual contact with them, and even then the process is very slow, instead of being instantaneous. Laborious experiments for public benefit are eminently praiseworthy, but we cannot but think that success, if it results in this case, must be ascribed to some other influence than the absorbing power of the leaves.

THE INTERNATIONAL FAT CATTLE SHOW AT POISSY, FRANCE.—This show took place on the 6th, 7th, and 8th of April. The show-yard consisted of only a series of sheds, erected in the usual cattle market, and was open to all. The entries in the French department were 215 cattle; calves, 16; sheep, 20. In the English, the entries were—cattle, 64, and sheep, 24. There were six classes in all for English cattle, each comprising two heads for prizes—that is, for cattle not exceeding three years, and those above three years. In the first class for Short-Horns, the Duke of Beaufort took the prize of honor (a silver cup, value 2,500f), for the best beast in the show, for his Short-Horn ox under three years; Mr. Stratton taking the 2d prize with his four years and two months old ox. The Earl of Leicester and Mr. Heath took the prize in the class for Devons; while Mr. Heath took the 1st prize for Herefords, and Mr Potter the second prize. The Scotch was by far the largest and the best, on the whole, of the British department. There were some splendid specimens of the polled breeds, Mr. M'Combie taking a first prize with his four years five months old ox. There was a good show of West Highland, the Duke of Beaufort taking a prize with his four years seven months ox. The show of British sheep was not considered a favorable one. The principal breeders did not exhibit; there were, consequently, but few first-class pens. The prize of honor, silver cup, value £40, was gained by Mrs. West, Bleckenton, Oxfordshire, for a pen of five Cotswolds. In the French cattle department the effect of crossing with the British breeds was apparent, a cross between a Short-Horn bull and a Breton cow gaining a first prize. Among the sheep also, the effect of crossing was shown in some fine specimens of Merinos crossed with Leicester. There was a large show of pigs, some of them exhibiting very superior qualities.

☞ WM. H. LADD has sent us his Report as President of the Ohio State Board of Agriculture. We find the following facts and suggestions:—

—Too little attention is paid to grass in proportion to its value as a crop. More care and liberality in seeding, and a more generous supply of manure, especially in the way of top dressing the thinner parts of pasture lands, would double the present yield.

—To the introduction of superior blood and the greater care in breeding excited by shows and Ag papers, is ascribed the fact that while in 1855, the 624,746 horses in Ohio were valued at $31,415,004, in 1856, 621,443—a number over 3000 less, were rated at $36,231,127, or nearly five millions more.

—Like causes, plus the increased demand for meat provisions, have produced similar effects upon the cattle of Ohio, diminishing the number from 1,791,189, in 1855, valued at $18,902.006, to 1,687,710 in '56, with the aggregate value of $21,551,170.

—Taking two and three-fourth lbs. as the average per sheep, the wool clip of Ohio has fallen off from 13,624,069 lbs. in '54, to 9,662,626 in '56, or nearly four million lbs. in two years. This is accounted for in the report by the high prices, both of meat and bread stuffs, and increased facilities for transportation.

☞ Messrs L. Scott & Co. of New-York, have forwarded us a copy of "The Farmer's Guide to Scientific and Practical Agriculture; detailing the Labors of the Farmer in all their variety, and adapting them to the seasons of the year as they successively occur. By Henry Stephens, F. R. S. E., Author of the 'Book of the Farm,' etc., assisted by John P. Norton, late Professor of Scientific Agriculture in Yale College. In two volumes with numerous illustrations." The American publishers of this valuable work affix the following note:

> "That portion of the Farmer's Guide written by Mr. Stephens, is a reprint of the second edition of the 'Book of the Farm.' The reader will see by Mr. Stephens' Preface, that the second edition is virtually a new book, embracing the more important features of the first edition, and all the later discoveries in Agricultural Science. This improvement in the character of the work, together with the additions of Prof. Norton, has induced the American Publishers to adopt a new title. The change is sanctioned by the British Publishers, who have an interest in the sale of the American Edition, and it meets the approbation of the American Public."

THE PREMIUM LIST of the N. Y. State Ag. Society with Regulations for the Fair at Buffalo, Oct. 6–9, is issued and may be had of the Secretary.

☞ The Journal and Transactions of the Board of Agriculture of Upper Canada, have appeared, containing Mr. Lynch's Prize Report on the County of Simcoe.

MURRAIN IN CATTLE.—So prevalent has this disease become in some parts of the European continent, that an Order in Council has been published by the British government, prohibiting the importation of cattle, or of horns, hoofs, hides or skins, from those territories of Russia, Prussia or Mecklenburgh Schwerin, which lie on the Gulf of Finland, or between the Gulf and the city of Lubeck. It is hoped in this way to exclude this serious malady, among the effects of which are not only feared its ravages for a season, but also the permanent deterioration of breeds. The governments of France, Prussia, and some of the smaller German states, had already made regulations for the exclusion of the tainted cattle or any part of their carcases. The British papers are also advising increased attention to stock, to keep it in a healthy state, and render it less liable to infection; it being thought likely that lack of proper food, ventilation and cleanliness, would have a tendency to encourage the dreaded epidemic.

Mr C. S. Wainwright's Catalogue of Devons to be sold at "The Meadows" June 17, includes 11 head of females and 10 of bulls, the latter including "May Boy," taker of several important prizes, and a first class animal.

More Sales. — Mr. Welton Marks of Camillus, Onondaga Co., N. Y., has just purchased from Dr. Herman Wendell of this city, the following: *Cows*—Daisy 4th, by imported Wildame bull Prince, 841 A. H. B.—Daisy 6th, by imported Duke of Wellington, (3654)—Daisy 7th, by Duke, 441. *Heifers*- Lady Ware, Dairy, Duchess and Sally Randolph, all by imported Lord Ducie (13181,) by whom the three cows are in calf. In a note furnishing the above facts, Dr. Wendell says—"My herd is yet quite extensive, being made up entirely of *imported* animals and their get—all *Bates*. My two last imported cows brought me noble calves, both by Gen. Canrobert (12926,) whose sire is Grand Duke (10284,) and whose dam is by 4th Duke of York, 10167.) One of the calves is a bull, a roan—I call him Duke of Portland—the other a red and white heifer—I call her Duchess of Cleveland."

Dr. Jas. W. Wilkie of Auburn, has purchased the thorough-bred Durham bull "La Grange," bred by Col. J. M. Sherwood. He is intended for his father's estate in Manlius, Onon. Co. As a getter of fine milkers, he has no equal. La Grange, bred by Col. Sherwood, calved 13th July, 1851, in color, roan—got by 3d Duke of Cambridge—dam, La Polka by Pontousic—Ladie by Arrow (A. H. B. 11)—Lois by Archer (E. H. B. 3025)—Lily by Wendell, E. H. B. 5667)—Netherby by Monarch (4494)—Sweetbriar by Barrupton (54)—Roseling by Western Comet (689)——— by Comet (155) ——— by Son of Favorite (253) ——— by Cupid (177) ——— by Favorite (252.) Pontousic, bred by Col. Sherwood, was got by Symmetry—Dam, Philopœna by Archer, &c.

United States Ag. Society.—At a recent meeting of the Implement Committee of this body in New-York, arrangements for a general trial of Implements at the Louisville Fair next fall, were completed, and it was decided to have a Summer trial of Reapers and Mowers, in the western part of this State, if a locality and time can be found satisfactory to all concerned, or if this should appear impracticable, Delaware was named as the next best State. E. Holmes of Ohio, well known as an accomplished and reliable mechanician, has been engaged to superintend the two trials, and secure the thorough and equitable examination of all competing machines. It is stated that—

> The Society have decided to offer a Grand Gold Medal of Honor for articles of the greatest importance to the farmer: one for the machine which shall, in the most thorough manner and with the greatest saving of time and labor, accomplish the disintegration of the soil—performing the labor of the plow; another for the best motive power for farm use; another for the most important invention relating to agriculture, patented within the last two years. This Grand Medal will be superior to anything heretofore made in this country, and, as it will only be awarded after the strictest examination and most careful deliberation, it will be a prize worth seeking.
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> A Grand Gold Medal, valued at $175, will be awarded to the successful machines at the Reaper and Mower trial. H. S. Olcott, Secretary of the committee, will forward a list of regulations and premiums to applicants. His address is American Institute, New-York City.

Shade Trees in Pastures.—J. O. B. Renick of Columbus, O., and who is we believe an extensive grazier, supports the views promulgated by our correspondent, Hon. A. B. Dickinson, about the injurious effects of shade trees in pastures. In a letter to the Ohio Farmer, Mr. R. says—"You recommend graziers, if they have no shade trees in their pastures, to make a way to the woods for their cattle. My observation and experience convince me the less shade the better, and I would refer you to Mr. Dickinson, Hornby, New-York, who has been the most scientific grazier I ever knew; he has experimented thoroughly, and will tell you if you wish to fat your cattle, cut down any shade tree. All admit that shaded pastures will not fatten fast, and if your shade is in groves, the cattle will assemble, hook each other about, and will not leave until hunger drives them out, and your cattle are more liable to bunch and scar; where, if there is no shade trees, they will lie down scattered as soon as they have filled themselves. They get a free circulation of air, and not so liable to foot-evil or disease. Cattle are more healthy raised on a prairie, than in a timber country."

Announcement in Relation to the U. S. Ag Society's Trial of Implements.—Most of our readers have doubtless seen a circular put forth a month or two since by the *Committee of Arrangements* of the United States Ag. Society, upon the subject of the proposed trial of Implements at Louisville. They will also remember a notice in our paper of April 23d, of a recent meeting of this committee, mentioning their action in relation to a proposed test of Reapers, and specifying some of the premiums to be offered for them and other implements. The last number of the *Boston Cultivator*, in referring to the latter, has the following announcement, which is of some importance to any parties feeling an interest in the matter, or who may intend to become exhibitors:—

> "It will be recollected that we have already published a circular in reference to this trial, from the 'Committee on Implements and Machinery of the U. S. Ag. Society.' To correct misapprehensions, we are authorized by the President of the Society to state that the persons whose names are attached to that circular, are only a committee to make the arrangements for the trial—that the committee *to make the examinations and awards has not yet been appointed*, but that it is intended to select for that place men of the highest capability in reference to the matters on which they will be called to act, and that their names will be announced in due season."

R. C. M., Washington Hollow. Your notice of a remedy for heaves, &c., is very proper for an advertisement, but not as a communication.

Large Pig and Large Ruta Bagas.—I notice several statements in the Cultivator of large hogs, turnips, &c. Hazen Hazeltine, of this village, killed, on the 16th day of December last, a pig exactly eight months old, which weighed 406 lbs. Fed twice a day on "slops" and milk, with the meal of corn and peas, and oats added, and once with corn on the cob.

In the summer of 1844, we fenced off a piece of sward, and yarded the cows upon it till July 20th, then plowed it, and yarded them on it the remainder of the season. In the following spring sowed ruta bagas after another plowing and harrowing. We had over 1400 bushels to the acre, and there were 25 bushels out of which no two turnips could be selected that would lie in a bushel basket,—one so nearly filling it that a second would roll to one side and turn the basket over. Many of them weighed fifteen pounds each, and one of them went up to seventeen and a half pounds. I well remember having to carry a few of them through the door, as the cellar window was *too small* to admit them. J. W. Boynton. *Hatley, C. E.*

Poultry Manure.— At a recent meeting of the Skaneateles Farmer's Club, Mr. C. Moses stated that he considered the droppings of poultry to be equal in value to the food the fowls ate. He made it into a compost—one-third ashes or plaster, and two-thirds hen manure, using 25 bushels to the acre—a handful to a hill of corn. This agrees with the opinion sometime since expressed by one of our correspondents.

☞ By an oversight in "making up," the last paragraph of the article on page 182 of this number, headed "Root Crops—Humbugs, &c.," was omitted, together with the name of the writer, Mr. W. J. Pettee, of Connecticut. His advice may be received with greater weight if we add the fact that he was last season awarded the first prize by the Conn. State Ag. Society, on Farms of less than 100 acres. He attributes this success solely to the growth of root crops as described in his communication.

Weight of Grain.—By a law passed by the Legislature of the State of New-York, April 16, 1857, it is enacted that a bushel of

Indian Corn shall weigh,		58 lbs.
Wheat	"	60 "
Beans	"	62 "
Peas	"	60 "
Clover seed	"	60 "
Potatoes	"	60 "
Rye	"	56 "
Flax seed	"	55 "
Barley	"	48 "
Buckwheat	"	48 "
Timothy seed,	"	44 "
Oats	"	32 "

Sale of Ayrshire Cattle.—We invite attention to the public sale of fifty head of Ayrshires, by Robert Gray at Frederickton, N. B. A letter from our correspondent at St. John, N. B., says—"The stock to be sold is very choice, the breeder having emigrated from Ayrshire seven years ago with a stock of pure bred cattle, selected from the best dairies there, and he has succeeded in keeping them up to the mark. The bulls he has, are directly descended from "Jock the Laird," an animal which sold for £300 sterling. There are two steamers a week from Boston and Portland to St John, and steamers every morning and evening from St. John to Fredericton."

More Cattle Coming.—We learn that Thos. Richardson, Esq., of West Farms, Westchester Co., N. Y., has recently purchased a superior Short-Horn bull got by Mr. Boothe's "Hopewell," and three heifers also of Boothe blood, which are soon to arrive at New-York.

Mr. H. Ambler's celebrated herd of Short-Horns, Halifax, England, were sold at auction the first week in April. Fifty animals were sold, averaging $420 per head. The bull "Grand Turk," was bought by the Illinois Company for $1,500. The same company also bought the cow "Western Lady," for $875; and the next day, at the sale of the herd of the Rev. T. Carter, consisting of about 60 head, the same company bought two heifers at $450 and $290.

Devon Herd Book.—Sanford Howard, Esq., editor Boston Cultivator, gives notice that the third volume of the Devon Herd Book, which he has been engaged in preparing, will be ready for delivery in July next.

HAY PRESSES.

Dederick's Celebrated PARALLEL LEVER Portable and Stationary HAY PRESSES, patented May 16th and June 6th, 1854—which (at about the same cost of transportation as a Railroad Horse Power and Thresher,) are now being forwarded to all parts of the country, and are in every case giving the most decided satisfaction; which (with two men and a horse) are warranted to bale from six to nine tons of hay per day, according to the No. or size of the press—and which are sold for from $100 to 175. For circulars, with full explanatory engravings, and numerous first-class references, appply personally or by mail to WILLIAM DEERING & CO.,
Dec. 11—weow&mtf Manufacturers, Albany, N. Y.

Please to Read This.

If YOU WANT EMPLOYMENT, send at once for Mr. Sears' Circulars to Book Agents. Our publications are considered among the most saleable. Address (post-paid) ROBERT SEARS, Publisher,
March 19—w6tm6t No. 181 William-st., New-York.

SECOND GREAT SALE

Of pure-bred AYRSHIRE STOCK, at Oak Park, near Fredericton, New-Brunswick, on Thursday, 25th June, at 11 o'clock forenoon.

THE subscriber will sell by auction, Fifty head of his surplus stock of pure-bred Ayrshire cattle, comprising

1 four year old Bull,
3 two year old Bulls,
8 one year old Bulls,
10 three year old Cows.
10 two year old Heifers,
10 one year old Heifers,

and a few Bull and heifer calves.

The above are warranted to have been bred by the subscriber from stock selected and imported by himself from Ayrshire. ROBERT GRAY.
May 21—w5tm1t. Oak Park, Fredericton, N. B.

C. S. WAINWRIGHT'S

First Public Sale of Thorough-bred North Devon Cattle, to be held at "The Meadows" on the 17th day of June, 1857.

THE subscriber intends holding his first Public Auction of North Devon Cattle on the above-named day, at his residence, "The Meadows," four miles north of Rhinebeck Station on the Hudson River R. R. The animals to be sold will number between 20 and 25 head, males and females, from calves to full grown; all of which have been either bred or imported by himself, and have perfect herd-book pedigrees. As a lot, he believes he may say with truth, they are fully equal to any ever yet offered to the farmers of the U. S. Among the number will be the imported bull May-Boy, (71,) and the imported cows Nonpareille, (924,) and Moss-Rose (904.)

Catalogues containing full pedigrees and all necessary information, will be ready on the 15th of April, and will be sent to all desiring it. The subscriber will be happy to have gentlemen visit his herd at any time.

All the sales will be bona fide; and no animal on the Catalogue will be disposed of until the Auction.
C. S. WAINWRIGHT,
Ap. 9—w10tm2t "The Meadows," near Rhinebeck, N. Y.

Chinese Sugar Cane.

500 POUNDS pure seed, finest quality, for sale at 75 cents per lb., or 100 lbs. for $60.
W. R. PRINCE & CO.,
May 7—w1tm1t* Flushing, N. Y.

SUGAR CANE.

SUGAR CANE.

CHINESE NORTHERN SUGAR CANE.—A large supply of Seed of the very best and purest quality just received, and for sale at the NEW-YORK AGRICULTURAL WAREHOUSE and SEED STORE. It can be had by the quantity, or for $2 Seed enough will be sent by mail, post-paid, to thoroughly plant an acre, with directions for planting and cultivating accompanying each package.
R. L. ALLEN,
April 9—w2tm2t* 189 Water-st., New-York,

Pure Chinese Sugar Cane Seed.

THE subscriber is prepared to supply orders for this Seed, warranted pure, at 75 cts. per pound.
GEO. G. SHEPPARD, Horticultural and Seed Agency, 159 Front Street, New-York.
April 30—w2tm1t.

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME.—Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

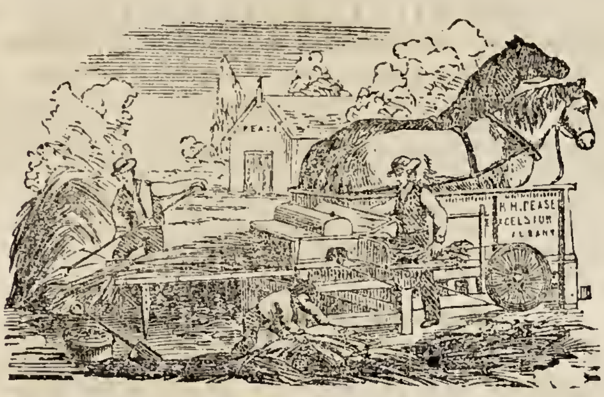
POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS, all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.
R. L. ALLEN,
Feb. 26—weow&mtf 189 & 191 Water-st., New-York.



Excelsior Ag. Works, Albany, N. Y.

RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered. RICH'D H. PEASE.

CERTIFICATES.

BEDFORD Co. Tenn. Oct. 15, 1856.

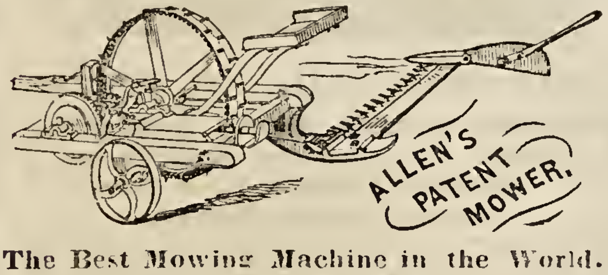
We the undersigned hereby certify that we have purchased of the Agent of the Manufacturer, Richard H. Pease of Albany, New-York, his "Excelsior Horse Power and Thresher," and having used them a sufficient length of time to convince us of their utility and durability, feel no hesitancy in saying that in our opinion they are the very best of which we have any knowledge, they having performed to our entire satisfaction. Given under our hand day and date above.

GARRET PHILLIPS,
M. L. DISMUKES,
THOS. LIPSCOMB,
WM. A. ALLEN,
J. T. ARNOLD,
W. W. HASTINGS,
JAMES MULLINS,
BENJ. GARRETT,
ALEX. SANDERS.
WM. M. GOGGIN,
ALEX. EAKIN,
REDDING GEORGE,
J. J. KOONCE,
W. C. J. BROWN,
H. D. DAVIDSON.

EAST GREENWICH, N. Y., Feb., 25, 1857.

MR. R. H. PEASE—I received the Two Horse Power, Thresher and Separator I purchased of you, and put it to work to test it. I have threshed 2.500 bushels of wheat, oats and rye with them, without a break of any kind. It works to my entire satisfaction, and I think there is no better machine made. WM. MCNEIL.

May 14—w&mtf.


ALLEN'S PATENT MOWER.

The Best Mowing Machine in the World.

ALLEN'S

PATENT IMPROVED,

MOWING MACHINE,

AND COMBINED MOWER AND REAPER;

STRONG, simple in construction, not liable to get out of order, compact, light, easy of draft, perfectly safe to the driver, and may be worked at a slow gait by Horses or Oxen. No clogging of knives; works well on rough ground, also on side-hills, salt and fresh meadows, and in any kind of lodged grass and clover.

Warranted to Give Entire Satisfaction.

Manufactured at the Agricultural Implement Manufactory, and for sale at the Warehouse and Seedstore of
R. L. ALLEN, 189 & 191 Water Street,
April 30—w9tm2t. New-York.

Agricultural Books,

For sale at the office of the Country Gentleman.

A New and Improved Style of Barometer.

Farmers Save Your Crops?

I AM now manufacturing Barometers expressly intended for the use of the farmer. To the mariner the Barometer has always been considered indispensable—it has saved thousands of lives by its almost unerring indications of approaching tempests. The only reasons why FARMERS have not generally availed themselves of the benefits of this instrument have been; 1st. The great cost of reliable instruments: 2d. The extreme liability of its destruction by transportation, and 3d. The prevailing opinion that none but the learned and experienced can understand its indications.

All these objections are now completely removed.

After much reflection and experience I have adopted a method of construction so as to ensure complete accuracy and durability, and which enables me to send them by express to any part of the country without the slightest injury, and with scarcely a chance of damage. These instruments are put up in handsome style, in polished black walnut cases. They are about three feet long, and make a handsome piece of furniture.

Price Only Five Dollars.

To every purchaser is furnished a pamphlet entitled the History and use of the Barometer, giving in addition to a complete history of the instrument, the fullest instructions for its use, and for predicting changes in the weather.

This pamphlet contains rules and suggestions never before published, and which are the result of my experience as a practical meteorologist. Price of pamphlets 10 cents. Any one who can read can understand it. My Barometers were awarded

A FIRST CLASS SILVER MEDAL

At the last Michigan State Fair. They have, moreover, been fully tested for more than a year by farmers in different parts of the country, and purchasers are continually expressing to me their unbounded satisfaction from the utility of their instruments, which have in many cases saved their owners more than ten times their cost in a single season! Not a single purchaser can be found who is dissatisfied, or who would be willing to part with his instrument. The strongest certificates and recommendations could be added, were it necessary. The instruments will last, with proper care, for any length of time. I also manufacture Standard Barometers furnished with Thermometers, Vernier scale and ivory point cistern, put up in mahogany cases, with large glass door at top. Price $15, or only half the price of the Standard Barometers of other makers, while it is handsomer and more durable than any other now made. All orders promptly attended to. The safest way of remitting money is by draft. All letters requiring an answer should enclose a stamp for return postage. Address L. WOODRUFF,
April 30—m2tweow4t. Ann Arbor, Mich.

The Muscadine Grape,

A NEW AND CHOICE VARIETY.

A SHAKER SEEDLING.

THIS early, excellent grape ripens early in September, nearly a month earlier than the Isabella. It is perfectly hardy for the Northern climate, a sure and constant bearer, not subject to mildew, and the fruit is delicious and high flavored, having no unpleasant pulp, and has been pronounced by competent judges superior to the far-famed Isabella or Catawba, either as a wine or table grape. Confidently recommending it to the public, and believing that all who try it will find it THE VERY GRAPE they want, we offer the public the roots at prices varying from $1 to $3, according to age and size. Address
RICH'D H. PEASE,
April 9—w4tm2t Albany, N. Y.

FOR SALE

NO. 1 Peruvian Guano,
No. 1 Manipulated Guano,
Superphosphate of Lime,
Bone—fine and coarse,
Poudrette, Plaster, &c.
Field and Garden Seeds.

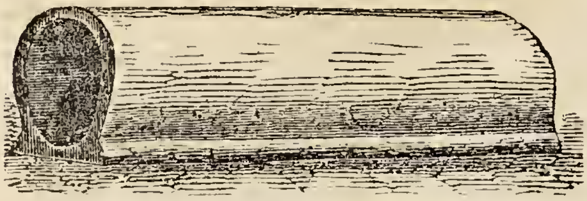
A large assortment of the most approved AGRICULTURAL and HORTICULTURAL IMPLEMENTS.

☞ Also the little AMERICAN MOWER and REAPER, the best harvester in the world, at the low price of $100 as a mower—$120 as mower and reaper combined. This machine weighs only 450 lbs., and is warranted. For sale by GRIFFING, BROTHER & CO.,
Feb. 19—w&m4m 60 Cortlandt-st., New-York City.

For Sale,

DURHAM YEARLING BULLS AND HEIFERS—also Calves and LEICESTER SHEEP.

RALPH WADE,
Jan. 1, 1857—m6t Cobourg, C. W.



ALBANY TILE WORKS

Corner of Patroon and Knox Streets, Albany, N. Y

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10.000 or more, a small discount will be made.

HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches rise,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

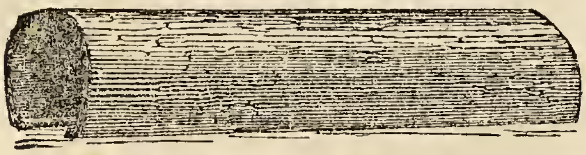
SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches rise,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y.
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.



New-York State Tile Works,

On the Western Plank Road, near the Orphan Asylum, Albany, N. Y.

THE subscriber having purchased the Drain Tile works of Artcher & Co., offers for sale the following sized Tile:

HORSE SHOE TILE 14 INCHES LONG—PIECES.

2½ inches calibre,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

SOLE TILE 14 INCHES LONG—PIECES.

2 inches calibre,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

I warrant every Tile perfectly sound, and harder and better Tile than any before made in Albany. If not, the purchaser need not pay for them. I will also undertake draining to any amount, and at any place, and furnish Tile for the same, and ask no pay until the employer is perfectly satisfied with the result. I am also willing to render my services in laying out drains free of charge, to any one who purchases Tile of me.

A liberal per centage will be allowed on orders for 10,000 or more. Cartage free. Gentlemen, your patronage is respectfully solicited. Orders from all parts thankfully received and promptly attended to.

GEO. ALDERSON, Albany, N. Y.,
Office 38 Quay Street.
(Late Artcher & Co.)
April 30—w4t&eow3ms—m6t.

PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

R. L. ALLEN, 189 & 191 Water-st., New-York.

☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.

Feb 26—weow&mtf

Agricultural Seeds.

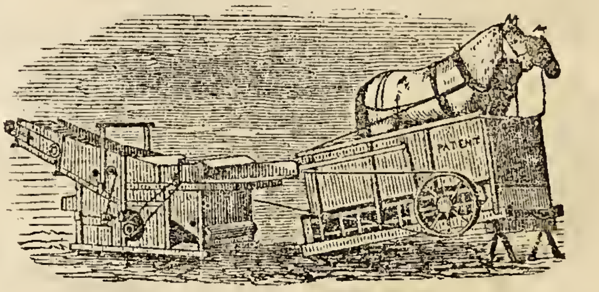
THE subscribers offer the following seasonable seeds, the growth of last year, and of unsurpassed qualities. Dealers and others requiring large quanties, will be served at prices considerably below the rates quoted.

Best quality Red Top Turnip,	75 cts per lb.
Red Top Strap Leaf, do.,	75 do do
Large White English Globe, do.,	50 do do
do do Norfolk, do.,	50 do do
Long White Tankard, do.,	75 do do
Yellow Stone, do.,	75 do do
Yellow Aberdeen, do.,	75 do do
Best American Improved Ruta Baga, do.,	75 do do
Imported do do do.,	50 do do
Imported Purple Top, do.,	50 do do
and 12 other fine varieties of Turnips, from	50 to 75 cents.
Early Scarlet Horn Carrot,	$1 00 do
Improved Long Orange, do.	1 00 do
Long White, do.,	75 do do
White Sugar Beet,	50 do do
Yellow, do.,	50 do do
Long Red Mangel Wurzel, do.,	50 do do
Fine Mixed French Grass Seed for Lawns,	$5 per bush.
And other mixtures for Lawns,	3 and 4 do.

Also the finest qualities of Red, White, Dutch, Lucerne and other Clovers—Timothy Seed, Red Top, Blue Grass, English and Italian Rye Grasses, Orchard—Sweet Scented Vernal—the Fescues and other Grasses, with a large and complete assortment of VEGETABLE, FLOWER AND FIELD SEEDS of the best qualities, at reasonable rates.

☞ Catalogues on application.

JAMES M. THORBURN & CO.,
April 23—w4tm2t. 15 John Street, New-York.



THE SCHENECTADY AG. WORKS,

Manufacture Improved Railway Horse Powers, Threshers and Separators, Threshers and Winnowers Combined, Clover Hullers, and Sawing Machines.

THE undersigned having been over twenty years engaged in building Horse Powers and Threshing Machines, feel confident from past experience and the numerous testimonials we are receiving from all parts of the country, of the superiority of our Machines, that we can give satisfaction to all who may favor us with their orders. Our HORSE POWERS are made substantial, and so geared that it requires the team to travel only about 1¾ miles per hour, thereby making them suitable to work either horses or cattle on them. Our THRESHERS and THRESHERS AND WINNOWERS, are so constructed as to discharge all the grain and dust through the Machine, and not into the feeder's face as is usual with other kinds. The Thresher and Winnower has a revolving wire separator, which does the work more perfect than can be done any other way.

The SEPARATOR (riddle) has a fork or straw-shaker, which shakes the grain out of the straw as it passes from the Thresher.

We warrant these Machines to suit the purchaser upon trial, or they can be returned and the money will be refunded.

G. WESTINGHOUSE & CO.,
March 5—woam&m5t Schenectady, N. Y.

! R. Nutting's Horizontal Wind Power. !

THE last, and in every respect the best; more powerful, controlable, simple and durable. Patent dated April 28, 1857.

Responsible, well recommended agents, AND NONE OTHERS, wanted to sell rights in all parts of the United States, to whom one half the receipts will be given for their services, they furnishing their outfit. Apply IMMEDIATELY, at Randolph, Vt. R. NUTTING.

May 14—weow3t—m1t.

Choice Farm Lands for Sale.

THE ILLINOIS CENTRAL R. R. COMPANY,

IS NOW PREPARED TO SELL ABOUT

1,500,000 ACRES

OF CHOICE FARMING LANDS,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE Lands were granted by the Government to aid in the construction of this Road, and are among the richest and most fertile in the world. They extend from north-east and north-west, through the middle of the State, to the extreme south, and include every variety of climate and productions found between those parallels of latitude. The northern portion is chiefly prairie, interspersed with fine groves, and in the middle and southern sections timber predominates, alternating with beautiful prairies and openings.

The climate is more healthy, mild and equable, than any other part of the country—the air is pure and bracing, while living streams and springs of excellent water abound.

Bituminous Coal is extensively mined, and supplies a cheap and desirable fuel, being furnished at many points at $2 to $4 per ton—and wood can be had at the same rate per cord.

Building Stone of excellent quality also abounds, which can be procured for little more than the expense of transportation.

The great fertility of these lands, which are a black rich mould from two to five feet deep, and gently rolling,—their contiguity to this Road, by which every facility is furnished for travel and transportation, to the principal markets North, South, East, West, and the economy with which they can be cultivated, render them the most valuable investment that can be found; and present the most favorable opportunity for persons of industrious habits and small means to acquire a comfortable independence in a few years.

Chicago is now the greatest grain market in the world—and the facility and economy with which the products of these lands can be transported to that market, make them much more profitable at the prices asked, than those more remote at government rates,—as the additional cost of transportation is a perpetual tax on the latter, which must be borne by the producer, in the reduced price he receives for his grain, &c.

The Title is perfect—and when the final payments are made, Deeds are executed by the Trustees appointed by the State, and in whom the title is vested, to the purchasers, which convey to them absolute titles in Fee Simple, free and clear of every incumbrance, lien or mortgage.

The Prices are from $6 to $30—Interest only 3 pr. ct.

Twenty per cent. will be deducted from the Credit Price for Cash.

Those who purchase on long credit, give notes payable in 2, 3, 4, 5 and 6 years after date, and are required to improve one-tenth annually for five years, so as to have one-half the land under cultivation, at the end of that time.

Competent Surveyors will accompany those who wish to examine these Lands, free of charge, and aid them in making selections.

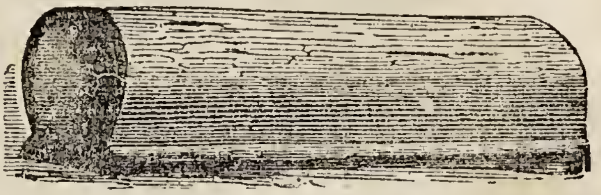
The lands remaining unsold are as rich and valuable as those which have been disposed of.

SECTIONAL MAPS

Will be sent to any one who will enclose fifty cents in Postage Stamps, and Books or Pamphlets, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad Lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc.,—or any other information—will be cheerfully given on application, either personally or by letter, in English, French or German, addressed to

JOHN WILSON,
Land Commissioner of the Ill. Central R. R. Co.
Office in Illinois Central Railroad Depot, Chicago Ill.

April 9—w&m6m



Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Willson's Nursery.

HORSE SHOE TILE 14 INCHES LONG.

PRICES—4½ inches calibre, $18 per 1000 pieces—3½ inch. $15 per 1000—2½ inches, $12 per 1000.

SOLE TILE 14 INCHES LONG.

4 inches calibre, $40 per 1000—3 inches, $18 per 1000—2 inches, $12 per 1000.

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also large Tile for small streams and drains about dwellings, &c., at $4 $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

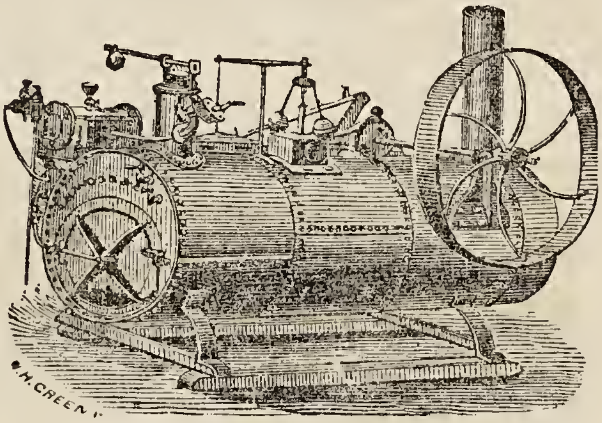
Tile delivered at the locks and railroads free of cartage. Specimens can be seen at L. & M. Merchants', 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that Tile from his establishment obtained the first prizes at the Albany county and N. Y. State Fairs. Practical drainers furnised if required.

Orders from all parts will be thankfully received and promptly attended to. Address JOHN APPLETON,
195 Washington-st., Albany, N. Y.

March 26—weow8tm3m.



Wood's Portable Steam Engine Works,

Eaton, Madison Co., N. Y.

A. N. WOOD & CO.,

Practical Machinists, and Builders of their Celebrated

PORTABLE STEAM ENGINES

For Farm and Mechanical Purposes.

WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

PRICE LIST FOR 1857.

Horse power	estimate weight	space occupied	cash price	fly-wheel diameter	face of wheel
2½	2000 lb.	4 by 5 ft.	$240	39 in.	5½ in.
3	2200 "	5 by 5 "	290	39 "	5½ "
4	2500 "	7 by 5 "	355	40 "	6 "
6	3600 "	7 by 5 "	550	44 "	7 "
8	4800 "	9 by 6½ "	700	48 "	8 "
10	6000 "	10 by 6½ "	875	60 "	8 "
12	7500 "	14 by 6½ "	1050	72 "	12 "

The above price includes boxing and delivered on board cars. A. N. WOOD & CO.

April 23—wtf—June 1—mtf.

Contents of this Number.

THE FARM.

Manures—Economy and Management of........ 169, 175
Drill Seeding, by H. Daboll,........ 170
In re Superphosphate of Lime, by J. H. Hodson,........ 171
The Water Ram,........ 171
Millet and Millet Fodder, by B. D. Smith,........ 172
Winegar's Water Elevator,........ 173
Brush Drains, by L. B.,........ 173
Farming in Litchfield County, Ct., by L. A. Cooke,........ 174
Rotation in Crops—Mr. More's System,........ 175
The Use of Plaster with Stable Manures,........ 175
Experiments with Colza or Rape, by L. Bartlett,........ 177
One Advantage of Rotten Manures, by Columbia Co.,........ 180
Underdraining with Stone, by C. G. Calkins,........ 180
Exhaustion of Soils,........ 181
Root Crops, Humbugs, &c., by W. J. Pettee,........ 182
The Wheat Crop, by T. Thomas,........ 182
Barn for a Farm of 100 to 200 Acres, by C. Betts,........ 183
Manures and Corn Culture, by N. Little,........ 183
Eight Year's Experience with the Water Ram, by Jas. Childs,........ 186
Management of Stable Manure, by B. C.,........ 186
Clover Seed Cleaner, by Jas. Harroway,........ 186
Experiments with Potatoes, by H. H. Guild,........ 186
Agriculture and Other Pursuits,........ 187
Condensed Correspondence,........ 189
Steaming Hay,........ 190
Inquiries and Answers,........ 191
Home-made Seed Planter, by C. C.,........ 192
Wheat Crop in Illinois, by B. F. J.,........ 193
Notes for the Month,........ 194

THE GRAZIER.

Cow's Sucking Themselves,........ 172
Fattening Pigs, by W. H. A.,........ 174
Feeding Sulphur to Cattle by Asa Bailey,........ 174
Lice on Domestic Animals, by J. W. L.,........ 177
Remedy for the Hoven, by J. W. L.,........ 177
A Munich Horse Market, by W. H. Brewer,........ 178
Sheep Feeding,........ 181
"Bright Eyes V."........ 184
Feeding and Weaning Calves,........ 184
"Double Duke,"........ 185
Wolf Teeth in Horses, by A. M. Williams,........ 185
Productive Sheep, by A. S. Clarke,........ 185
Remedy for Sweeny, by W. T. L.,........ 185
Plaster a Remedy for Lice on Stock, by Allen Palmer,........ 190
Remedy for Cow's Sucking Themselves, by G. R. Williamson,........ 190
America vs. England on Horses,........ 193

THE HORTICULTURIST.

Preparation of Grape Vine Borders, by Rural,........ 176
Mice and Trees, by T. S. Clarkson,........ 179
The Cherry Slug, by E. S. E.,........ 179
Transplanting Evergreens, by W.,........ 179
To Destroy Caterpillars on Trees, by S. L.,........ 179
A Word about Post Holes, by Rural,........ 180
Melon Bugs,........ 188

DOMESTIC ECONOMY.

Recipe for Cracker Pie, by C. F. Webster, Sr.,........ 170
Trapping the Rats, by a Reader,........ 172
Milk Houses, by S. L.,........ 176
Boiled Turkey,........ 179
Recipe for Rheumatism, by X.........180
Hard Soap for Family Use, by E. W.,........ 180
Transportation Protector,........ 188

THE POULTRY-YARD.

Management of Chickens,........ 190

ILLUSTRATIONS.

Cows Sucking Themselves, (two figures,)........ 172
Winegar's Water Elevator, (three figures,)........ 173
Plan of Barn,........ 183
Short-Horn Cow, "Bright Eyes V,"........ 184
do Bull, "Double Duke,"........ 185
Transportation Protector, (two figures,)........ 188
Protecting Melon Plants, do do........ 188
Home-made Seed Planter,........ 193

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VOL. V. ALBANY, JULY, 1857. NO. VII.

Stable Manure.

DR. VOELCKER'S INVESTIGATIONS—COMPOSITION OF FRESH AND ROTTEN MANURE.

[Written for the Co. Gent. by Prof. S. W. JOHNSON.]

In our last article on this subject (page 185) we discussed the much mooted question of the comparative value of fresh and fermented manure. Considerations were adduced which showed plainly that in some circumstances the one, and in other circumstances the other, may produce the best effects. We now propose to inquire, what and how much loss may occur during the fermentation of manure, and here, as every where in agricultural studies, we must be cautious not to resolve upon our conclusions before we have made as full and careful survey of the subject as is possible. The idea, so stoutly maintained by scientific men, that fermenting manure may suffer an enormous loss of value, was no invention of an active imagination, but was the legitimate conclusion derived from the results of actual experiments. Lately we have a new series of elaborate experimental trials conducted by Dr. VOELCKER, which seem to modify, and in some degree reverse the old routine. Practical men differ, too, in their views. Some believe that the loss of ammonia is "humbug;" others most positively assert that it does escape, and claim to have found that the use of means for retaining it has been highly remunerative. These differences of opinion demonstrate that the subject is no simple one, but involves a variety of influences and effects. The fact is, that the question is by no means entirely settled, and while we may quiet our fears that it is altogether a losing business to allow manure to ferment without using expensive fixers of ammonia, we must not forget that some ammonia will escape under almost any circumstances, and that a little ignorance or carelessness may be the occasion of a serious loss of this invaluable manuring agent. The experiments of Dr. Voelcker have been alluded to in the Co. Gent., but no full account of the method he used, or the conclusions he arrived at, has been laid before our readers. So important is this investigation in some points, that it deserves to be reprinted in this country, not only for the practical results it contains, but also to show how how, and how much, science may benefit the agricultural art; at the same time it needs to be adapted, so to speak, to American climate, i. e. the nature and probable effect of any causes operative here that may modify the English conclusions, should be explained. Let us then attend to Dr. Voelcker's experiments. The account of these occupies 70 pages of the Journal of the Royal Ag. Society of England.

I have not had the time needful to make a careful abstract of this mass of results, and have therefore availed myself of an outline of them, written by the distinguished STOECKHARDT, which appears in the January No. of an Ag. paper (Der Chemische Ackersmann,) edited by him.

The objects of the investigation were to study the comparative compositions of fresh and rotten manure, and to trace the changes which the one undergoes in passing into the other.

The method of the investigation was chosen with a view to furnishing reliable practical, as well as scientific conclusions. The experiments were conducted on so large a scale as to represent accurately what happens in the great operations of practice; and the barnyard and the laboratory were made to unite their resources in an admirable manner. In consideration of the difficulties to be encountered, Dr. Voeckler's method must be admitted to be quite successful, although it is now easy to indicate how it might be imporved, and *it is necessary that new investigations be made, in which some of the deficiencies of the present one are supplied, before we can feel warranted in drawing final conclusions.*

Composition of fresh and rotten manure. The material to most of Dr. Voeckler's experiments, consisted of a mixture of the fresh dung of cattle, horses, and hogs, of which a large quantity was worked over until it was made as uniform as possible. Several portions, of two cart-loads each, were taken and treated as follows:

1. Heaped up against a stone wall, but exposed to wind, sun and rain.

2. Heaped up as 1, but under a shed, and protected from rain, sun and wind.

3. Spread out as manure is accustomed to lay in open yards.

4 A smaller heap was made of mixed manure, that was well rotted, and had been taken from the lower

part of a large heap, where it had lain six months. It was placed against a wall, but exposed.

These heaps were put up in Nov., 1854, and were weighed and analyzed in February, April, August and November, 1855. Of the 50 tables of the original, we copy a few of the most important. Since some of the analytical results were vitiated by mixture of earth with the heaps, the corrections of Stoeckhardt have been adopted.

Here follows a general and comparative view of the composition of several specimens in different stages of decomposition.

COMPARATIVE VIEW.

No. 1.—14 days old, unfermented, may be considered fresh.

No. 2, *a.*—Exposed during three winter months.

No. 2, *b.*—Sheltered during three winter months.

INGREDIENTS IN 1000 PARTS OF THE DRY (water free) MANURE.	No. 1. Fresh manure 14 days old. Nov. 1854.	No. 2. Slightly ferment- manure, 3 mos. old. *a* Unco- vered.	*b* Cover- ed.	No. 3. Well fermented from bottom of a large heap six months old.	No. 4. No. 3 after lying one year.	No. 5. No. 1 after being spread one year.
Total organic matters,	835	740	710	670	560	480
Soluble " "	73	120	80	151	44	19
Total inorganic "	165	269	290	330	440	520
Soluble inorganic matters,	45	98	65	60	36	18
Total nitrogen,	19	24	23	25	27	19
Nitrogen in soluble organic combination,	4.4	9.1	5 3	12.0	4.0	1.6
" as free ammonia,	1.0	0.6	0.6	1.8	0.1	0.007
" as combined ammonia,	2.6	2.1	1.6	2.3	1.2	1.2
Nitric acid,	none.	traces.	traces.	none.	heavy traces	slight. traces.
Potash,	20	41?	27	20	----	----
Soda,	2.3	7	7	3	----	----
Chloride of sodium,	0.9	3	2	1.5	----	----
Phosphate of lime,	20	19	30	39	----	----
Lime,	35	44	59	72	----	----
Magnesia,	4.6	1.5	2. 5	5.6	----	----
Sulphuric acid,	3.8	8.5	6. 6	5.2	----	----
Soluble silica,	36	32	40	68	----	----
Per cent of water in moist dung,	66	66	56	75	72	66 pr. ct.

There are two points of especial interest brought out by this investigation, viz: 1st. Yard manure, even when fresh, contains *a notable quantity of soluble phosphate.* The urine of herbivorous animals contains none or almost none of this substance. It has been hitherto assumed that fresh dung contains it only in an insoluble form, but Dr. Voelcker's analyses show that nearly one-half of the phosphoric acid existing in fresh dung is soluble in water, so that it is not needful to ferment manure before this ingredient can become available for plants.

2d. Yard manure, whether fresh or rotted, contains *much less ammonia* in a volatile form (carbonate of ammonia,) than has been hitherto assumed. The nitrogen of fresh manure is chiefly present in an insoluble condition, and becomes soluble mostly by conversion into ammonia during the process of decay.

Further, the well-known fact is confirmed that the carbonaceous portions of manure diminish, while the mineral and nitrogenous ingredients correspondingly increase in relative quantity, during fermentation.

Well fermented manure contains more water (10 per cent) than fresh manure.

The percentage of *soluble matters,* which are of most manurial immediate importance, is seen to increase very much in manure as it ferments under cover; while as No. 4 shows, they are washed away when the heaps are small and unsheltered, and especially (No. 5) when the manure is spread out and exposed to rains.

The principal soluble mineral ingredient is *silicate of potash;* next is phosphate of lime.

The chief ingredient of the insoluble portion is *silicate of lime;* next is phosphate of lime.

A better comparison is furnished by the following table, in which are given the ingredients of a ton (2000 lbs.) expressed in lbs., and assuming the manures all to contain 75 per cent. of water. The ingredients are arranged in two classes, those soluble and those insoluble; the first class comprises the immediately available part of the manure.

CONTAINED IN ONE TON.	No. 1. Fresh manure	No. 2. Slightly rotted.	No. 3. Well rotted.
Matters Soluble in Water.			
Total soluble matters,	58	90	105
" " organic matters,	36	50	75
Nitrogen in soluble form,	2¼	3½	6
Ammonia fixed and as carbonate,	1 4-5	1¼	2
Total mineral matters,	22	40?	30
Soluble phosphate of lime,	4½	5	7
" lime and magnesia,	1 1-10	1	3
" potash,	8½	14?	9
" sulphuric acid,	4-5	2¼	1⅓
" silica,	3½	4	5
Matters Insoluble in Water.			
Organic matters,	380	310	260
Nitrogen in insoluble form,	7⅓	8	6½
Total insoluble mineral matters,	60	96	135
Phosphate of lime,	5½	7	13
Potash,	1½	2⅔	1
Lime and magnesia,	18	25	35
Sulphuric acid,	1	1½	1½
Silica (soluble in acids,)	14	15	29

In the above we plainly see that there is a regular increase of *soluble organic matters* including *nitrogen,* which keeps pace with the progress of fermentation.

The increase of *soluble mineral matters* is not so evident and regular, which may be explained by the admixture of soil with the manure when the heaps were worked over in order to average them for analysis. It is still sufficiently obvious, though much inferior to that of the organic matters.

The greater effect of well rotted manure is therefore chiefly due to the larger quantity of *available nitrogen* it furnishes to crops.

The facts that in barn-yard or stable manures are contained *all the elements* which can serve as food to the plant, and that these exist in it in *so great a variety of forms,* serve to explain why, more than any other fertilizer, it deserves the name of a *universal manure.* Thus all of its important ingredients exist in at least two conditions of solubility, and its composition is constantly undergoing changes. It is evident that the greater the variety in the form and condition of the constituents of a manure, the greater will be the number and variety of soils and crops which it may benefit.

In fresh manures (with abundant litter) the larger part of the insoluble organic matters consist of straw in an almost entirely undecomposed state. In rotten manure the straw is converted into humus (humic ulmic acids, humine and ulmine) the compounds of which, with potash, soda and ammonia, are soluble, and of a dark brown color, whence the hue of the drainage of dung heaps.

The humus mostly fixes (forms non-volatile compounds with) the ammonia that results from the decay of the nitrogenous matters. A small portion of ammonia escapes this kind of combination, and passes into the atmosphere as carbonate.

In our next will be noticed particularly the changes and loss manure undergoes by fermentation. *Yale Analytical Laboratory, New Haven, Ct.*

◆

Facts in the Agriculture of New Jersey.

PROFESSOR COOK'S REPORT—COMPARISONS WITH ADJACENT STATES—PROFITABLE CROPS—WASTE LANDS AND EMIGRATION—POTATOES AND MARL IN THEIR CULTURE—FERTILIZERS—MARL AND CANCERINE.

A few pages upon our subject, in the "Third Annual Report on the Geological Survey of the State of New Jersey, for the year 1856," for which we are indebted to Prof. Geo H. Cook—we have read with much interest. Tables furnished to Prof. C. by town assessors, show a very gratifying degree of progress in that state since the U. S. Census of 1850, "an advance in the Agricultural products of about 50 per cent, and price of land nearly doubled." Comparisons are made with the statistics of Connecticut, New-York, Pennsylvania and Delaware, which look very favorably for New-Jersey, both in respect to the increase in the production of the staple crops of wheat, Indian corn and potatoes, and also in the average yield per acre of the different grains, while there is a very large balance in her favor as regards the products of orchards and market gardens. Her position, with the large cities of New-York and Philadelphia on her immediate borders, with navigable waters almost surrounding her, and crossed by numerous railways and canals, gives her agriculture an important advantage, and it has another perhaps equally great, in the marls, limestones and other fertilizers in the soil, the fish and crabs of the contiguous ocean, and the offal of the adjacent cities. The success attendant upon good farming is referred to as unsurpassed—"the product per acre for the whole area of New Jersey, being considerably greater than in any of the adjoining states," while immense returns are in some cases yielded by lands devoted to fruits and vegetables. Strawberries yield from $100 per acre upwards; indeed the premium of the Burlington Co. Ag. Society in 1855, for the most profitably cultivated crop in the county, was awarded to one of this little berry, which yielded a *clear profit* at the rate of *twelve hundred and twenty-two dollars* ($1,222) per acre. "Cranberry fields are known which annually yield to their owners $300 dollars an acre." Fortunes have been made by the growth of apples and peaches. From $100 to $300 per acre are yielded by crops of early potatoes.

In view of all this, it is still more surprising than in some of the other older states, that the unoccupied lands of New Jersey attract so little attention. It is calculated that "there are still two millions of acres, or nearly one-half the state, uncultivated"—not all entirely waste, it is true, as small crops of wood are taken from it, but lacking neither the fertility or healthiness of other localities "from which persevering and skillful husbandry is now deriving the largest and most certain returns." The large body of uncleared land in the central portion of southern New Jersey is, however, gradually diminishing, and productive farms are extending themselves where a few years ago there was only unbroken forest. Without any ill-will toward the western states, any desire to check their growth and prosperity, or any endeavor to under-rate the real advantages they *do* possess, we may advise farmers of the East, in justice to themselves, to think more than once before determining on a removal. The above facts in relation to New Jersey, are true in a greater or less degree, of portions of this and other adjoining states, and it requires no very long experience to satisfy the observer that quite as great an amount of energy, skill, and industry, will be found requisite to secure a fortune in the agriculture of the prairies, as in that of good localities at home. We would have the farmer here, before deciding to cut off his connection with the east, ponder whether there are not acres of waste lands on his present farm which might be made profitable, and a fund of wealth in all its soil, of which his practice in the past has given him little conception. We would have him dig about the old homestead one year longer, and dung it well, and see if it may not be made to bring forth better. We would have him open his eyes to all the improvements of which farming here is susceptible, before he carries a shiftless and miserable system to burthen his career even in the most fertile of the newer States. We may be thought *interested*, and thus worthless advisers in this; but States as newly settled as Ohio share the complaint, and Indiana, Illinois and Wisconsin may come to utter it, when at last peace and good government shall tempt their sons away to the still newer and more attractive fields of Kansas and Nebraska.

The Census Reports of New Jersey show a large increase in the product of potatoes, against a diminution for the whole States of Connecticut, Pennsylvania and New-York. Middlesex Co., in the first, eight counties in the eastern part of the second, mostly on the Delaware river or its branches, and in this State the three counties constituting Long Island, by themselves manifested an increase. "Of the States in which there was no greatly increased population from immigration, New Jersey and Delaware were the only ones in which there was not a diminution of the crop of Irish potatoes between 1840 and 1850." The increased product in New Jersey is ascribed to the presence and use of marl; in Delaware the largest crop is in New Castle Co., in which marl is also found, and the largest increase on Long Island was in those parts of it, which there is some reason to believe lie in the same geological formation as those portions of New Jersey in which the increase was greatest.

"The fact of this remarkable difference, in favor of our marl districts, is that which mainly concerns the practical farmer, but the cause of it cannot but be interesting to reflecting minds. Whether its special action is due to some component of the marl, or whether its usefulness is partly owing to the mingling of new earth, taken from beneath the surface, with the soil, is a question not easily answered. There is no effect produced on the appearance of the potato top. The crop, of choice varieties, is from seventy-five to one hundred and fifty bushels an acre. The potatoes are of good size, smooth and smooth-skinned, of superior quality for the table,* and not subject to the potato rot. The marls, which are least esteemed for permanent improvement of the land, produce quite as good effects upon a single crop of potatoes as those which have the highest reputation. The Cumberland marls, which are not green sands, are deemed almost indispensible to this crop, and they produce potatoes of an excellent quality; though I think the average crop per acre is somewhat less than where green sand marl is used."

This marl is attracting more and more public attention. That from Squankum sells at Freehold for eight cents per bush., and at pits, according to the labor of excavation, at from 25 to 75 cents per ton. Its actual worth it is difficult to estimate. Worn-out soils are stated to have recovered by its use more than their original fertility, and the value of the land is said to have been thereby increased from fifty to an hundred fold. "In these districts, as a general fact, the marl has been obtained at little more than the cost of digging and hauling but a short distance. There are instances, however, in which large districts, of worn out lands have been entirely renovated by the use of this substance, though situated from five to fifteen miles from the marl beds, and when, if a fair allowance is made for labor, the cost per bushel could not have been less than from twelve to sixteen cents. Instances are known where it has been thought remunerative at 25 cts. a bushel." The following are results of analyses (1.) of the marl which has been most largely used upon potatoes in Monmouth — (2) the variety which is most generally used in Burlington, Camden, Gloucester and Salem counties—(3.) that which found in Deal, Poplar, Shark river, and Squankum, in Monmouth Co.

---

* Potatoes from the marl region will bring fifty cents a barrel more than others, in the New-York market, and then have the preference.

	(1.)	(2.)	(3.)
Water,	12.200	10.260	10.600
Silica,	38.700	46.660	51.162
Prot-oxid of iron and alumina,	27.690	24.921	22.300
Potash,	4.467	6.818	4.274
Lime,	------	2.865	3.478
Carbonate of lime,	13.910	------	------
Magnesia,	1.213	3.089	2.037
Phosphoric acid,	1.140	3.599	4.540
Sulphuric acid,	0.309	0.982	0.429
	99.629	99.194	98.820

Prof. COOK, after alluding to the great difference between the estimates of different authorities as to the value of the different constituents, adopts mainly the calculations of Prof. WAY, and therefrom estimates the value of (1) at $4.71 per ton, that of (2) as $9.05, and that (3.) at $7.96. The supply of these may be considered inexhaustible, "in many cases a ton or more having been dug from underneath each square foot of surface." The district, which this green sand underlies, extend "from Sandy Hook Bay and the Atlantic Ocean on the shore of Monmouth Co., to Delaware river and bay, at Salem, Salem Co., a distance of 90 miles, and with a breadth varying from 14 miles at its northeastern to 6 miles at its southwestern extremity," including an area of 900 square miles. Calcareous marl, consisting mainly of carbonate of lime, is extensively developed through the whole of this district, and is of well known value as a fertilizer.

Cancerine, a manure made from the king-crabs abounding on the sea shore, was noticed in Prof. COOK's last year's report, from which we have already obtained and published a statement of its value and power as a fertilizer. The result of further trials during the past year, have fully sustained his impression of its importance. It is thought to supply an excellent substitute, both in quality and price, for Peruvian Guano, as a concentrated manure. Immense quantities of fish are also easily procurable, at small expense.

We have given but an imperfect summary of Prof. COOK's review of the Agriculture of New Jersey, but one which can scarcely fail to impress our readers more deeply and justly with the numerous advantages it possesses. To those who read the report itself carefully and considerately, there can but remain a diminished doubt—if any ever existed in their minds—of the mooted "profits of farming."

◆

SALT BARRELS FOR PRESERVING APPLES.—A correspondent of the Scientific American says "he purchased five barrels of choice apples taken from one pile, last autumn, and put them into his cellar. On the 1st of April last, when he came to examine them, those in four of the barrels were mostly all damaged, while those placed in the other barrel were sound—"fresh and good." What was the cause of the preservation of the apples in this barrel? Our correspondent says it was a Syracuse salt barrel, and had contained coarse salt, and he believes this was the cause of their immunity from rot. He, at least can give no other reason. Neither can we."

Drill Seeding.

MESSRS. TUCKER & SON—I read in your Co. GENTLEMAN, that a correspondent inquires of the benefits of drill seeding, or if it is better to sow seed in drills or broadcast. I see it has been noticed two or three times since in a manner quite to the point. I will add my experience on the subject.

In the fall of 1853, I engaged a man who owned a drill to come and sow six acres with wheat in a field of ten acres. The part sown with the drill was the poorest and fartherest from the barn; consequently had not received as much manure as the other. The remaining four acres were sown broadcast. At the time of harvesting, the drilled wheat was much the best—probably four or five bushels to the acre. The same season, (some time the last of Sept.) I had another piece sowed with a drill—clover sod, second crop; the green clover turned under would hay probably 1½ tons to the acre)—of a long triangular form. The outside was sowed with a drill. A strip nearly the whole length of the piece in the middle, of about three-quarters of an acre, was sown broadcast. At the time of harvesting, the drilled wheat would yield 25 bushels an acre, while that sown broadcast would only go about three or four, and was badly shrunk and smutty at that. That winter with us here, was by far the worst for winter killing wheat I ever knew. Common sowed wheat here did not yield over one-third to one-half a crop that season.

Having so good luck with a drill that season, I purchased one in company with one of my neighbors. Then I thought I would try and experiment with spring wheat. I had a piece of low unreclaimed bog swamp land of fifteen acres, which had raised two crops of corn, and which I wanted to sow to wheat and seed down for a meadow, well drained with open drains. I fixed the drill, expecting to sow 1½ bushels to the acre, but in consequence of white caps which clogged the feeding slide, it only put on one bushel and four quarts. Ten acres was sown in this way. The remaining five acres were sown broadcast on the furrows, 1½ bushels per acre, well sowed and well put in. The wheat sown broadcast came up first, looked the best, and did the best until about knee high, when the drilled part came on, and after that did the best until harvest. When harvested the berry of the drilled part was nice and plump as wheat could be, while that sown by hand was some shrunk; the hands while cutting judged the drilled part would yield three or four bushels to the acre the most. The fifteen acres yielded three hundred and ten bushels and three pecks.

I think from my own experience and others about me, that drilled wheat will yield on an average 3 to 4 bushels to the acre over broadcast one season with another, besides requiring about one-half bushel less seed. There are some very good farmers here which condemn the wheat drill for the reason that they have seen some pieces of wheat sown broadcast which were better than some sown with the drill, without taking into consideration the difference in the condition of the land. I, myself, with the help of the Hessian fly have raised some very poor pieces of wheat sown with a drill, other things being quite favorable. Seeds sown with a drill, are all deposited at an even depth, and consequently can grow and ripen more evenly than if deposited at all depths, from the top of the ground to six inches below. E. DENNISON. *Forestville, Chaut. Co.*

◆

A VALUABLE JACK.—Mr. James Hall, of Bourbon Co., Ky., recently sold a Jack, two years old last spring, for the sum of $2,400. Mr. J. F. Pany, of Scott county was the purchaser. To this animal was awarded the first premium at the late State Fair, at Paris.

Potatoes on Clover Sod.

Messrs. Eds.—Your paper has recently contained several valuable articles on the cultivation of Potatoes, yet perhaps others may be interested in learning my method and opinion in the premises. I do not pretend to go into any *extras*, but try to give as good soil and culture I think profitable as circumstances permit.

The same soil and preparation which will produce good corn, brings, with me, a good crop of potatoes; and I generally fit the ground for both at one operation, as both occupy one field in most instances. To a good clover sod on a loamy soil, I apply from twenty to thirty loads of barn-yard manure per acre, leaving it in heaps as drawn out, and spreading it when ready to plow under. I plow from six to nine inches deep a few days before planting, taking care to make no baulks, and to turn under the manure as perfectly as possible. Have never tried it, but think a double plow would be a good implement for the work. I then harrow thoroughly, lengthwise the furrows in order to get the surface in fine tilth, to expedite planting. But few sods are torn up, or need be, if the ground is plowed properly.

The field is then marked out in rows, three and one-half feet apart (for both crops), and planted across these at the same distance, so as to give a fair chance for cultivating both ways. If I planted in drills, I would cover the seed with the plow, but planting only an acre or so, I use the hoe, and in the cornfield, prefer hills, as I wish to cultivate across the whole field—through corn and potatoes at once. As to seed,—to get the most potatoes (in number) put in eight or ten eyes to a hill, or one whole potato; but to get fine large ones, I do not put in more than three eyes in any instance.

The culture usually given, is to pass through each way twice in a row, with the horse-hoe or cultivator, and then finish hilling by hand. I used to hoe twice, sometimes, but of late years I defer hilling until I can do that part all at once—cultivating a second time. On a clover sod, well plowed immediately before planting, once hoeing will keep down the weeds until the potato vines get large enough to cover nearly the whole surface.

Sometimes early, and sometimes late planting succeeds the best—as the season may chance to be wet or dry, late or early. If the drought holds off until the potatoes get well rooted, it does little injury; and I think it pays well to top-dress with a spoonful of plaster to each hill, as soon as the potatoes get well up. Last year I tried ashes, and thought them beneficial.

The product per acre varies with the season, from one hundred and fifty to four hundred bushels per acre.

The rot has sometimes affected my potatoes when very prevalent, but not often, or to any great extent. B. *Niagara Co.*

Application of Hen Manure or Guano to Corn.

For the information of W. F. Woodward, (p. 89) and all others concerned, I send you my plan of using hen manure on corn—also guano. First, I plant my corn without manure of any kind, unless I have marled the ground the previous winter; after the corn is up a few inches, say the fore part of June, I run a small plow as near the hills as possible, throwing the soil from the corn; it may now lay a few days more; when I am ready to turn the furrow back, I apply the manure in the furrow, not only by the hill, but the whole space from hill to hill; then turn the furrow over the manure and tend your corn at the same time. By putting it on in this stage of the crop's growth, it brings out the crop far better than putting in the hill. The roots are all drawn to the manure. The deeper the manure the deeper the roots. J. C. Taylor. *Holmdel, N. J.*

Wintering Cattle and Horses.

LETTER FROM A BOY.

Messrs. Editors—Supposing that the columns of your interesting paper are open to young correspondents as well as old, and hoping by my example other boys may be led to give their experience, I will give you a little of mine in the care of cattle and horses during the past winter. The latter part of last November, my step-father (G. W. Durant) left home to spend the winter, leaving the sole care of 10 head of cattle and a span of horses to me. It was thought to be a considerable undertaking for a boy of 16 years (and rather small at that,) and father said a short time before he started, that if he staid at home we should have hay to sell, and the cattle would come in the spring kicking up their heels, but if he went away we should have to buy hay, and tail the cattle. *I* thought we could tell better when spring came.

As soon as he was gone, and I had the whole care, I commenced experimenting to find how much hay each cow needed, and I soon got so that I could tell by the weight of a forkful as I took it up, whether it was enough or not. In the very coldest weather I added a little too, and in warm weather I deducted a little from usual weight. At noon I gave them a little straw or chaff for a change. The milch cows I fed a peck of carrots, beets, or potatoes, with all the good hay they could eat daily.

Now that the cattle are taken care of, let us enter the horse stable, and there you see a span of small, smooth, and compactly built horses, as sleek and fat as two well-fed mice; and how are they kept so? Do they have all the hay they can stuff, and six, eight, or twelve quarts of oats, as the case may be, after the very common method of keeping horses? No, sir! It is my opinion it would not take long for a span of horses to eat themselves up, sleek and clean, at that rate. Now come around behind this partition, and there you see a large pile of rye straw, cut about an inch long. We give our horses a bushel and a half of this straw, well wet, with two quarts of rye bran and shorts, morning and night This bran and stuff is very light, about four bushels to the hundred. They have not worked much this winter, it is true, but I have rode about with them a great deal. When we commence our spring's work, we shall give them two quarts three times a day, instead of twice, and if worked very hard, may be a few carrots.

I think that this subject of wintering cattle and horses well, and doing it cheap, is one that would be for the profit of farmers (in our vicinity at least) to study into and experiment upon. Now, Messrs. Editors, if this should be acceptable to you, I may write again some time. As to tailing cattle and buying hay, I have seen nothing of the kind; on the contrary, every body is telling how nicely our cattle look, and I heard father say that we had nearly hay enough to winter our stock over again. Alfred H. Bronson. *Rensselaerville, N. Y.*

We thank our young friend for the above, and shall be glad to hear from him again. If he will do up all his work as faithfully and intelligently as he cared for his father's stock through the winter, he will not fail to make a first-rate farmer.

Remedy Wanted.—I am desirous of finding a remedy for the following: A three-year-old steer has a hard bony substance formed on the lower jaw, which covers a space of three or four inches. It appears like a large protuberance, adhering very closely to the bone, seeming like an enlargement or swelling of the bone. It made its appearance two months ago, is increasing in size and extending toward the throat. E. M. H.

Mutilated Evergreens.

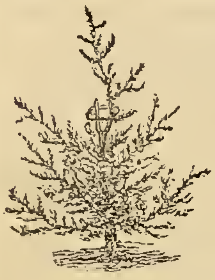

Fig. 1.

So long as those nuisances, and enemies to civilization and comfort, *street cattle*, are allowed, many beautiful and costly evergreens will have their tops cropped off if a gate chances to blow open. Such cropped specimens are to be seen almost everywhere, and the owners generally regard them as ruined. They may however be brought into shape with a little attention. The leading upright shoot being destroyed, select a large thrifty side-shoot, as near the top as practicable, and carefully bend it up perpendicularly. If there is enough of the stump left, tie it to this stump; if not, place a rod in contact with the stem, and tie the rod to the trunk below and to the branch above (Fig. 1). The upright branch will soon become a strong grower, and form in a few years a good upright leader. This result will be assisted if the other side-limbs are cropped at the ends, or pinched in. The small crook in the trunk thus caused, will constitute no material defect, as the stem of a thickly growing evergreen is soon entirely hid by the foliage both winter and summer.

Experimenters on the Curculio.

A great number of remedies against any disease, indicates both its formidable nature, and the difficulty of cure. It is so with the *Curculio*—we have had many prescriptions, good and bad. Among the bad or inefficient ones are, salt, lime-wash, sulphur, tobacco water, soap, cotton bands on the trunk, spading up before freezing, various fœtid odors, bottles of water in the tree, and many more; while among the more useful and efficient remedies, may be named, paving, dusting daily with ashes, jarring down on sheets, and turning in pigs and poultry. Paving can be applied only in certain instances; the two next may be used anywhere, and the last, namely, pigs and poultry, wherever provision has been made for the confinement of these animals.

Our present object is to show the large vote which has been given in favor of the last named remedy, throughout the country, that our readers who have not given it a full trial, may have the more confidence in its efficacy, and make preparations for it accordingly.

William N. White, of Athens, Georgia, says in his recent work on "Gardening for the South:" "The only really satisfactory mode of dealing with this insect, is admitting pigs and poultry into the fruit garden."

A. G. Hanford, of Waukesha, Wis., says, "A few years ago, he made an enclosure for his hens, unintentionally enclosing two or three plum trees. These trees produced perfect fruit, while on all the rest it was destroyed by the curculio. The next year he enclosed the rest, and had a good crop from all."

A. J. Downing, said in the Horticulturist, "No method has proved effectual, but placing trees in the midst of the pig and poultry yard—and notwithstanding the numerous remedies that have been proposed in our pages since the commencement of this work, this proves the only one that has not failed oftener than it has succeeded."

Wm. H. Southwick, of New Baltimore, in 1851, enclosed fowls with several of his plum trees. These were all loaded with plums, while the rest of his trees, not enclosed in the yard with fowls, lost all their fruit. The trees were all alike thrifty and vigorous.

A correspondent of the Genesee Farmer in 1854, says, "while on a visit to a friend in Lockport, N. Y., I observed about a dozen very thrifty and handsome plum trees in a yard where his hogs were kept. The trees were almost broken down by the weight, while another tree, outside the yard, showed only here and there a plum."

David Thomas stated in the old Genesee Farmer, that the late Charles Gifford, of Ledyard, Cayuga Co., N. Y., had never failed in having a good plum crop for seventeen successive years. His herd of swine always ran among the plum trees during the curculio season, and were sufficiently numerous to keep the ground thoroughly cleared of all fallen and punctured fruit.

Now there may be localities and seasons, with insects too numerous to be all destroyed by this remedy. In such instances, it will prove a most valuable auxiliary, and used in combination with some of the others we have named, will prove successful under all circumstances, if not too feebly applied.

Thumb Pruning.

Every one who raises a fruit tree should remember that it is easier to rub off a small green shoot than to saw off a large limb; and that it is better to give a well formed head to a young tree, than to mutilate a large one in attempting to cure early deformity. Trees that have been transplanted this year, or which have made but a few seasons' growth may be controlled in their shape with great ease. In examining young trees for this purpose, it will be necessary to cut out with a knife such young shoots as grew last year or before, that are unnecessary, or that interfere with a good, even, well distributed head; and during the early part of the present year's growth, the trees should be occasionally watched, and redundant shoots just forming rubbed off at once.

Cranberry Culture.

ANSWER TO J. M. CLARKE.

I consider made land, formed from creek deposits, second to wet swamp land covered with beach or other sand. It could be prepared for cranberries by plowing deep with a double plow, thereby bringing the subsoil to the top, and burying the sod deep. Then harrow smooth and mark with a small plow two and a half feet each way; set the vines in the crosses, 3 to 5 plants in a hill. Keep out all grass and weeds with the cultivator and hoe for the first year or two, when you will have only to overflow them occasionally during a drought. Water should not stand on the vines in summer over six or eight hours. For your land, the Bell variety would be the safest. I have a variety of Bell which I call *favorite*, on account of its fruitfulness and close-matting qualities, which I think will prevent grass and weeds from growing sooner than some of the larger vined varieties. The best time to set is in the spring. For land that can be worked with cultivator or plow, 2½ feet apart is the best distance. Gather as late as you can previous to heavy frosts. With a cranberry rake forty bushels is considered a day's work; the yield from two to three hundred bushels per acre.

I have not had much experience in cultivating the cranberry by irrigation, the level part of my cranberry yard being supplied with a limited quantity of water from a spring, the remaining part being a dry sand knoll kept mellow by cultivation and swamp muck, on both of which my plants do well. D. L. Halsey. *Victory*.

☞ Hon. J. Evelyn Denison, the newly elected Speaker of the British House of Commons, is President of the Royal Ag. Society of England.

Culture of Beans.

In the 217th number of the Co. Gent. is an inquiry on the field culture of beans; and as thousands of bushels have been raised in this neighborhood, we can tell how we do it, premising that while they are a paying crop, those who raise it must expect to have a little back ache

The ground should be mellowed and prepared as for corn, and then marked with a marker, which may be made of two or three narrow two inch plank fixed like a sled, and 24 to 30 inches apart, to make the rows as close together as may be and leave room to pass through with a cultivator one way, to clear out the weeds, and to leave a mellow furrow. I insert cultivator teeth near the back end guaged to run two to three inches deep.

The beans should be dropped four in a hill, and the hills eight inches or less apart, with kinds that branch and spread but little, and farther apart with others. One secret of raising a large crop, is to spread the hills as nearly as possible over the whole ground. Plant after corn planting—the earlier the better after the risk from frost is past.

Our earliest kind requires close planting on rich ground, and ripens just after wheat harvest. Our next earliest but more prolific sort, ripens a week or two later, while the most productive but most risky is later still.

When the larger part of the pods begin to get dry, they should be pulled and stood with tops down and roots up, five rows on two, more or less, so as to drive a team between—and when dry, draw in and thresh. Our yield is frequently from 20 to 30, and some say they have raised 40 bushels to the acre.

All things considered, they are thought by our farmers to be the best crop to precede wheat—while oats are a poor one, and with us rarely precedes it. J. U A. *Ulysses, Tompkins Co, N. Y.*

* * *

Drilling vs. Broadcast Seeding.

Having noticed a number of different opinions in regard to drilling and broadcasting, I am willing to give my experience on this subject. I purchased in company with a neighbor, a drill of J M Harvey & Son's Manufacture, Amsterdam, N. Y. (J. P Ross' Patent). In the spring of 1855, the first sowing was a piece of spring wheat. Not knowing anything about the drilling system, I sowed part with the drill and part broadcast in the same field and on the same day. That put in with a drill was more than a quarter better than that sown broadcast, both in straw and grain. I tried my oats in the same manner; they were also better where they were drilled. I have sowed all my grain since with the drill, being satisfied that it is the only proper method of putting grain into the ground. My neighbor, in sowing his buckwheat, had part sown with the drill and part broadcast, and when harvested the drilled was about half better; it was all well filled, while the broadcast was hardly filled—both put in the same day and in the same field.

I think it is better on other accounts than broadcasting. It saves a quarter of the seed; besides it cultivates the land, and leaves it in good condition for the crops, better than can be done with the harrow. The grain is all put in at an even depth in the soil, and I am satisfied that it is a paying machine.

I also have a thresher and mower, and I think they are good machines; but my drill pays me the most of any. It takes less time and seed and betters the crop, and in dry seasons they are indispensable. Knowing what I do about the drill, I think farmers can not afford to sow broadcast if they can obtain a drill. I would like to have others give their experience on the same subject. SARATOGA FARMER.

Drying off Cows.

MESSRS. EDITORS—The inquiry made by G. Berry, Burnt Hills, concerning his full-blooded Devon cow, according to my experience is easily answered.

There is no remedy in her case known to me. She will go on. But I will give the cause, and a preventive, which is much better than a cure. The cause of her being in such a state after calving, results from her not being dried properly last season. There is much more danger in drying a good cow than a poor one.

The proper way to dry a good cow is to try their teats, say eight or ten days after what is termed the last milking. If any milk be found in her bag, it must be drawn. If the milk be found of a natural color it must all be drawn; if it resembles milk and water in color, the cow is doing well. If at the first time trying her the milk is a natural color, she must be milked and let stand other eight or ten days, then tried again. If the milk is allowed to become stringy in the teats when dried, it will spoil the cow. I have had cows which would give more milk on one teat than on the others. Such cows, *if worth anything for milk*, if allowed to go dry without after examination, would be sure to lose *their teats*. A DAIRYMAN. *Allegany Co, N. Y.*

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Disease and Death among Calves.

Almost every spring or summer we hear of deaths among calves. The sight of calves that look puny, unthrifty, or sickly, is one which not unfrequently pains the eyes and sympathies of those who have occasion to travel in the rural districts. Whence come these losses and these painful sights? More frequently, we think, from stingy, starving, and unnatural modes of feeding, than from any other cause. To enable the owners to make a few extra pounds of butter, the poor calves are deprived of the food which Nature has provided for them, and get some cold substitute, in the shape of whey, skim-milk, or some other innutritious slop. The consequence of this short-sighted, mistaken economy is that the starved sufferers become puny and sickly, stunted and unthrifty, and that death steps in, now and then, to relieve some of them from their miserable life of avarice, inflicted starvation and suffering. Those who would avoid this cruelty and miserable economy, and those who would secure animals that will pay, will keep their calves *well* for the first three or four months; for creatures starved and stunted in their youth will never make as thrifty, healthy, well-formed, and able-bodied cattle as those which had a better start in life.

* * *

Cure for Caked Udder in Cows.

Common soft soap, rubbed on at or after milking times, for two or three days—an article always on hand in every farmer's house, and fully equal to Arnica. W. T L.

* * *

Mixing Lime with Manure.

EDS. CO. GENT.—I wrote to you some time back for your opinion in regard to mixing lime with barn-yard manure, and you were so kind as to give it a place in your excellent paper; and although your answer did not quite satisfy my wishes, by my name and residence being inserted, a kind friend sent me the wished-for information, for which I owe him many thanks. He says that lime should not be mixed with barn-yard manure in any case whatever, as it would certainly destroy the fertilizing properties of the manure, which has been proved by many experiments by my friend, D. M Mulvany, and others of Norristown, Pa. DAVID MILLER. *Brownsville, Pa.*

Chicken Roosts.

Messrs. Editors—When last at that model Hotel, "*Fouquet's*," in Plattsburgh, Clinton Co., N. Y., among other sight-worthy accompaniments of his unrivalled establishment, I was conducted by the proprietor to his Henery. This, I found, like everything else appurtenant to the Hotel, an exemplar of neatness, and exhibiting evidences of the remarkable inventive talent of the owner. I was particularly struck with the ingenious plan adopted in constructing the roost for the chickens. It consisted of a shaft of wood, placed vertically, from which projected at right angles, at the height of five feet from the ground, five radiating arms, like those of a turn-stile but not so stout, and about five feet in length. From the extremities of these arms strips of the proper length, and of the shape now most approved to give the fowls the firmest grasp, were carried, until chords had been formed to each arc of a circle, whose circumference would include those extremities. Then, other similar strips were fastened, in the same way, parallel to the first, and about two feet distant. The arms were strengthened by braces. The shaft had iron spindles inserted in either end, and thus revolved wich facility upon pivots. One great advantage of this revolving roost was, that after the chickens had all become quiet, upon their respective perches, by gently turning the whole machine, any particular chicken could be brought round for selection, without disturbing any of the rest, and the position of the party examining would remain unchanged. Any one acquainted with the great uproar and disturbance usually created by the cook, when in search of victims among a large number of chickens, or with the difficulty of capturing fowls, when their repose has been suddenly invaded, will appreciate the excellence of the contrivance I have described.

The same source,—the springs in the United States Reservation,—which the ingenuity of Mr. Fouquet has compelled to furnish, through pipes skillfully carried a long way under ground, the excellent water always to be found at his Hotel, sends up a tiny *jet d'eau* which continually drops its little stream into a miniature basin in the centre of the henery. Thus the fowls have always an abundant supply of the much needed element.

I cannot close this communication without referring to the very beautiful and graceful mode of vine training adopted by Mr. Fouquet, and which I believe is quite original with him. At one corner of the fine colonade which ornaments the entire front of the Hotel, overlooking the Saranac, a large specimen of the woodbine has been trained up, until on a level with the second story, and then is led along, from snowy pillar to pillar, in beautiful festoons, and in those graceful catenary curves, supported by a small iron chain, the links of which are hidden by the mass of foliage. The effect is very fine, and nothing can be more light and airy; the vine appearing to be sustained by the points of its contact with the pillars alone. When the vine is filled with dark glossy berries, the beauty of the whole scene is much enhanced; and no traveller will fail to bear away with him, in pleasing remembrance, the elegant taste which has adorned the exterior, and the good cheer and exceeding cleanliness and neatness which render so agreeable the interior of Fouquet's Hotel. E. L. R. *Baltimore, Md.*

Garden Vegetables.

Three points are to be especially observed, in cultivating successfully garden vegetables. First, perfect freedom from weeds; secondly, thinning out where they have come up too thickly, for a superabundance of such plants retards the growth and development of the rest in precisely the same way as weeds; and thirdly, keeping the ground mellow and the crust broken, by very frequent pulverization, especially if the ground is rather clayey.

How to Manage Fifty Acres.

I am about purchasing a place of fifty acres, eihgt of which are wood-land; the soil is a stiff clay, but has a sufficient fall to prevent water from ever laying upon it. It is ten miles from a railroad, so as to prevent any bulky or perishable article from being raised on it to profit. I will now give what the present proprietor has raised on it and considered a good crop, without deducting anything from grain for what he must have used for feed and seed. The butter is the amount sold, the average price of which here is 25 cents a lb.; the price of the grain is what it is now selling for.

6 acres of Corn, 300 bushels,	$180.00
6 " Oats, 300 "	120.00
6 " Wheat, 90 "	135.00
200 lbs. of butter at 25 cts.,	50.00
	$485.00

So much for his statement of what he has done. Now for my statement of what I want it to do.

First cost of land,	$3,000
Stocking the same,	1,000
	$4.000

Interest at 6 per cent.,	$240.00
Wages and farm bills,	400.00
Taxes and ware and tare,	60.00
	$700.00

I consider this a low estimate of what my expenses will be, but if the farm can be made to realize this sum, I will be satisfied. Will some of your readers who have had the experience of a place of this size, inform me how I can make that amount from it—what course of tillage I should follow—how much stock I should keep—how many hands I would require—in fact the full working orders by which I could realize that amount? By answering the above they would much oblige A Farmer.

How to Apply Hen Manure to Hills of Corn.

Esteemed Friends—I noticed in The Cultivator an inquiry as to how safely to apply hen manure to hills of corn. I have had some experience in it. Last spring when planting my corn, I put about half a pint to the hill, and put the grain upon it. In a week or ten days I went to see if it was up, but to my surprise not more than half had come. I waited a few days longer to see if any more would come, but no more of it appeared. I examined to see what was the cause. I found the grain was yellow; the manure was too strong, and therefore killed it. In replanting I mixed it well with earth, and in a few days it came up strong and grew finely, leaving that which was planted by the side, manured with barn-yard manure, a great way behind. The corn had a much richer color during the summer, and the ears were larger and better. My opinion is, that it should be composted with earth a few weeks before using.

The past winter I have been composting mine with unleached ashes, and intend to apply it to the hills. I think it can safely be used in this way, but be careful not to drop the corn on the manure; put it by the side; the roots will soon reach it. If this experiment should prove favorable, I will let my brother farmers know about it. D. Farlow. *New-Market N. C., 3d mo 21st*, 1857.

Large Lamb.—I have an Oxfordshire lamb, three weeks old this day, that weighed, when dropped, fourteen and a half pounds, and weighs to-day thirty-three and a half pounds. He is the product of a ram purchased of Mr. Carroll of Maryland, and an ewe from the flock of Justus C. Haviland of Dutchess Co., N. Y. Who can beat it? Allen Whedon. *Pawlet, Vt*.

Underdraining with Stone.

We wish to add a few remarks to the communication of our correspondent, C. G. Calkins, of Ohio, publishlished a week or two ago, and which contains some valuable suggestious on underdraining with cobble-stone.

We have practiced this mode for many years, before the introduction of tile. When stone are on the ground and abundant, they may be used to advantage. The objections to their use, are two; first, the earth is liable to work down among the stones, or "cave in," where streams run across the surface in heavy rains or in thaws, and find their way down through the soil. Secondly, the increased labor of digging a drain wide enough to lay the stones well, will pay for tile if not very remote from a tile manufactory.

The mode of laying must vary with the soil. Those soils which approach quicksand in character, render it almost impossible to use stone successfully. When they are saturated with water, they will find their way among the stones through every avenue,—at the top, bottom and sides. It is rare that such drains endure many seasons uninjured. The best security for them is to lay, first, flat stones on the bottom, (or hard, durable boards or slabs,) to prevent the cobble-stones from sinking into the earth; to use as small stones as practicable against the sides of the ditch, so that the interstices there may be too small for the soil easily to enter: and to cover the top with very small stone, and then very coarse gravel, or with flat stone, for the same object, before the straw or inverted sods preceding the earth covering, are applied. In stiff or clayey soils, the earth rarely falls in among the stones, even when little precaution is taken. After practising underdraining with stone on such lands for many years with entire success, we had occasion to adopt the same mode in another district of country, where the soil was light and much more sandy. The first spring destroyed the value of most of them by the caving-in of the soil, and this evil was only prevented effectually, by covering the stone filling either with flat stones, gravel, or hardwood slabs, before applying the earth at the top.

As a general rule, we would not recommend the use of cobble-stone, except in soils of considerable tenacity.

The importance of a good drain under every post fence, is not generally understood, and we are glad to see the subject alluded to by our correspondent. Wherever post holes retain water, they are sure to be heaved by frost, and the fence thrown out of shape; and the posts cannot last so long, where they are alternately subjected to water soaking and drying. But if all the water which falls, passes immediately down into the ditch, it cannot lie in contact with the posts long enough to soak them, and as a consequence, they must remain perpetually dry, and last for a long period. Robert B. Howland of Union Springs, N. Y., who has used Pratt's ditcher with success, found it cheaper to cut a ditch with this machine, in which to set the posts for a fence, than simply to dig the post-holes by hand, and he thus attained all the advantages of drainage besides a practice well worth copying.

A single suggestion on the efficacy of underdraining, on lands that do not at all appear to need it. It is a very good rule for determining its necessity, to observe whether water will *stand* in holes dug two or three feet, for this purpose. If the subsoil is porous, the water will immediately sink away, and ditches would be wholly useless. But if water will stand 48 hours in the holes, draining is necessary to relieve the subsoil of this cold and chilling mass which fills it.

Now, if the surplus water in the soil and subsoil at the wettest period, is only equal to a depth of two inches, then for a ten-acre field it would amount to more than *seven thousand hogsheads*. Suppose, therefore, that this field has such a slope as to give it what many would suppose a *natural* drainage—"not needing any ditching"—"dry enough already"—then, in getting rid of these seven thousand hogsheads of hurtful water, it must, every gill of it, soak drop by drop, from one particle of earth to another, until it all passes slowly down, almost imperceptibly, from one side of the field to the other. No wonder that days and even weeks are required to complete the process, and to render the land dry enough to become friable and fit to receive seed, and promote the extension of the young roots of crops. Now, give this field a smooth, tubular channel of tile, for every two rods of its whole surface, the shortest way down the slope; the water in the soil then has only about *one rod* to soak through the soil before reaching one of these drains, and most of it much less than a rod. When it reaches them, it shoots rapidly down the smooth descending tube, and in a few minutes has passed the boundary of the field, instead of being otherwise compelled to *soak* its weary way the whole 40 or 50 rods or entire breadth of the field. This rapid discharge reduces the soil to dryness in so short a time, as to surprise those who have never before witnessed it, and to lead to the common supposition that the simple statement of the practical advantages of thorough underdraining, by those who have given it a trial, are wild exaggerations

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Manures.

In two former numbers we have given some views on the management of farm yard manures, which are more largely used by the great body of farmers, than all others. But unfortunately, too many of them never think of looking beyond the limits of their hog and barn-yards for an additional supply. They even make no account of the deposites in the vaults of their privies, or the droppings of their fowls.

The solid portion of "night soil," after being dried with the retention of its gases, is an exceedingly fertilizing agent, and has been pronounced by Boussingault equal in value to ten times its weight of farm-yard manure. Said the late Professor Norton: "The manure of pigeons, hens, ducks, geese and turkeys, is very valuable, and should be carefully saved. The amount to be obtained from these sources may be thought so insignificant as to be unworthy of notice; but it must be remembered that three or four hundred pounds of such manure, that has not been exposed to rain or sun, is worth at least fourteen to eighteen loads of ordinary manure."

The farmer that neglects to properly husband and apply the above named rich manurial substances within his reach, and at the same time freely expends his money, (a thing that has been a thousand times repeated,) for "poudrette and guano," (nearly the same two things under different names,) does not fully understand his own pecuniary interest!

Health and cleanliness demand the frequent removal of all offensive matter from our dwellings and outbuildings; and especially the urine and fœces of the privies. They should always be constructed with reference to this Instead of having beneath them a a deep, well-like vault, the sills should be some two or three feet above the surface of the ground, and a strong, tight plank box should be placed beneath to catch the fœcal matter. The box should be some two or three feet longer than the privy, so that one end of it may extend beyond the sill; from the outward end of the box, the fœcal matter could readily be shoveled into a wheel barrow, and properly disposed of and cared for. But there should always, at least from early spring till late in autumn, be provided a sufficient supply of dry muck, clayey loam, charcoal dust or saw-dust, and frequently thrown in to absorb the liquid in the box, and to cover the solids Plaster, (but neither lime or wood ashes,) might also be freely used; and the box should be cleaned as often as once a week—managed in this way there would be but little or no offensive odor, either in the privy or in the removal of the contents of the box We are aware that we are writing upon a homely subject, but our creed is "evil to him that evil thinketh." Health, cleanliness and interest all require that more attention should be paid to this "homely subject." We have given Boussingault's opinion of the value of "night soil"—but his opinion was founded on the "original package," and not the "wishy washy stuff" often sold to farmers as *poudrette*, at two or three dollars per barrel at the place of manufacture. But mind, readers, we do not charge the manufacturers of poudrette with intentional fraud or cheatery—but it is not in the nature of things that they can make a first rate manure from the night soil collected in the cities. The city privies are cleaned out perhaps once or twice in the year, but during the intervening months decomposition is going on, and what is the result; why, the constituents of ammonia combine and unite with carbonic acid, and escape—the phosphorus and sulphur combine with hydrogen and result in the formation of sulphuretted and phosphoretted hydrogen gases—and like the ammonia, they escape into the air and are lost. But pursue the plan we have chalked out, and you will effect *two* important objects, viz: the suppression of noxious odors and the retention of the most *fertilizing properties of the material;* and this should be composted with several times its bulk of muck, loam, or turf from the road side.

We have given Professor Norton's opinion of the value of the manure of fowls. The manure of birds is richer than that of any animals, for the reason that here we have the liquid and solid excrements mixed together. On this account it is particularly rich in nitrogen, and also in phosphates. We are pleased to perceive by the agricultural papers, that farmers appreciate the value of the manure of their fowls; although it may not be worth quite as much pound for pound as a prime guano, it is valuable for the same reasons—its ammonia and phosphates. But we are sorry to say in much the largest number of published experiments we have read, in the application of hen manure as a fertilizer, the experimenters have *mixed unleached wood ashes* with the hen manure. Guano is valuable in proportion to the amount of ammonia it will yield—mix ashes with guano and the ammonia will be expelled precisely so with the dung of fowls. If any have doubts upon this matter, just rub together a teaspoonful each, of fresh ashes and moist guano or hen manure, and then you will know something about *free ammonia*, if you will just give the compound one good sniff.

The better way to manage the droppings of hens, is to collect them every few days, and dry as speedily as possible, because if they lay in a moist state in any considerable quantity for even a few days in warm weather, they will heat and ferment; carbonate of ammonia will be generated in large quanties, and be lost to the owner of the *roost.*

When hen manure is well dried it can be stored in old barrels or boxes, and safely kept till wanted. Pulverize and sift it if you please, and then mix it with several times its bulk of good soil, and it is then ready to drop in the hill or drills, giving the farmer a rich reward for his care and forethought.—(*To be continued.*)

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Wheat and Oats.—In a recent conversation with Paoli Lathrop, Esq., of South Hadley Falls, he stated to us that he had derived great advantage from sowing spring wheat and oats together—the crop used for horse feed, whole or ground. He stated that the wheat kept the oats from falling, by which means they filled better, and then the mixed crop gave as many bushels as would have been obtained of oats, while the value was considerably greater. The proportion of seed is one-third wheat and two-thirds oats—three bushels to the acre.

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Salt, Sulphur and Bones for Cattle.

Some three or four years ago a discussion of some length was carried on in our columns in regard to the propriety of salting hay, and the best mode of supplying salt to stock, both in winter and summer. The conclusion which was at length arrived at, and which seemed satisfactory to all who had taken part in the discussion, was this, that salt is most suitably administered to stock, not when forced upon them in uncertain and perhaps excessive quantities, as it is when put upon their hay, but when placed so as to be within their reach, in a box or trough sheltered from storms. This mode of administering salt possesses several advantages over any other mode which is usually practiced, of which advantages it is not one of the least that animals are thus left to supply themselves with this article according to the promptings of the safest and most unerring guide, namely, the instincts with which Nature has provided them.

At the time referred to, suggestions were made recommending several additions to the salt, such as sulphur, ashes, tar, &c. Recently we have had a suggestion that ground bones would be a useful addition to the salt, or any mixture of salt and other materials as above, especially for growing cattle whose bones are not yet matured, and for milch cows, which derive much of their food from *old* pastures which are usually deficient of a normal supply of phosphate of lime. We approve the suggestion, though we must say that this mode of supplying a common, and now a pretty generally known defect of *old* meadows and pastures, is on a rather too small scale. In consideration of the large amount of bone matter or phosphate of lime required for the healthy growth of young animals, and in consideration of the fact that every ten gallons of milk contain bone earth enough to form about seven ounces of *dry* bone, equal to about forty pounds of bone dust in the course of a year, it seems that larger supplies than can be given in the way proposed are absolutely necessary This may be accomplished by applying any manure which contains phosphate of lime. Johnston estimates that, when the milk of a cow goes off the farm, or is converted into butter and cheese and carried off, there is yearly drawn from the land a quantity of bone earth which can only be restored by the addition of 40 lbs. of ground bones. If to this is added only 10 lbs. for the bone carried off by the yearly calf, the land will lose by each cow as much bone earth as is contained in 50 lbs. of ground bones.

Guided by such an estimate, and making an allowance for animals fed and fattened on the farm, but eventually sold off, any one may calculate the amount of phosphate of lime which should be applied to his meadows and pastures to prevent exhaustion and its consequences.

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Remedy for Bad Milk in Cows.

Messrs. Tucker & Son—I noticed an inquiry in the Cultivator from G Berry, for the cure of a certain Devon cow that he sold to one of his neighbors. I have a cow that calved a few days ago, and not knowing the exact time that she would calve, I milked her to within three days of calving, when her milk grew very thick and stringy. After she calved I supposed that the calf would take that all away, but it did not disappear, and she began to dry up. I then pronounced it garget and gave her a teaspoonful of saltpeter at night in her mess, and another dose the next night, which has cured her, and she is gaining in her milk very fast. J. Ellsworth. *Ann Arbor, Mich.*

Planting and Hoeing.

The comparative importance of planting and hoeing is not generally well understood. In setting out fruit trees and planting garden vegetables, great care is often and properly used. The inquiry is made, "*How* shall I set out my fruit trees in the best manner? *When* is the best time to do the work?" And instructions, carefully listened to, are willingly followed.

But, unfortunately, the care is not continued. The good beginning is not carried out. Of the many who plant well, very few cultivate well. The fine mellow soil of spring, becomes too often a hard, dry, baked soil in summer. The clean surface at planting, is converted into a weedy, grassy surface when the trees come out in leaf to grow rapidly, and which then most of all times need all the strength and moisture of the earth. Those who have planted well should therefore at the present season, rather increase than diminish attention to their trees.

There is no tree that is more affected by cultivation, (and by "cultivation" we mean a *continued* mellowing of the soil,) than the young *peach*. We have seen many instances where the simple act of keeping pulverized the surface around the trees, has induced a growth of two to two and a half feet in a summer; while on the same ground, and both treated alike in every other respect, other trees which were neglected did not in any instance grow more than two or three inches.

And there is no tree that is more speedily injured and destroyed by the hot, hard, baked soil at midsummer than a newly trans-planted *cherry* tree. There is scarcely a man who has set out a dozen young cherries, that has not complained that although "they all started to grow," about midsummer some of them suddenly withered, and soon perished. The cause is, the roots not having penetrated deep enough into the earth, they are scorched and dried up in the parched soil. The remedy too often resorted to, is watering the trees on the surface of the ground. This moistens the *surface* only, and causes it to bake, but the water does not often reach the roots. If watering should become necessary, several inches of the top soil should be taken off, the water poured directly on the roots, and the soil then replaced But the best remedy by far, is timely *mulching*. Keep the surface mellow, till the approach of the hot weather of summer, and when the trees begin to grow rapidly, and consequently need much moisture, to sustain this growth and supply the evaporation from the leaves, then place a thick coating of old straw, hay, leaves, &c., around each tree, not less than five or six inches thick. This will keep the surface moist and cool, and in every case, if properly and timely applied, save the young cherry trees.

These remarks are not addressed to those very careless persons, who, after having bought young trees at a high price, thrust them rudely into a hard soil, as one would set a post, and devote no care to them whatever. Such persons believe that success is owing to *luck*, and wonder why some of their neighbors are so much more fortunate than themselves.

And yet, of the two, we would much prefer to abide the success of a badly transplanted tree, well cultivated afterwards, than one set out with all imaginable attention, and subsequently neglected.

The same want of continued attention is frequently observed, in relation to farmers' vegetable gardens. Great pains are taken in manuring and planting, but subsequent neglect spoils all. A neighbor was once remarkable for the skill with which he finished his garden beds in spring, some by-standers remarking that they were so smooth that one "could almost see his face in them;" but before the end of summer, they were usually covered with a dense growth of weeds. It would have been better to have planted more roughly and to have reserved a part of the labor for after culture.

Those who read these remarks, and who have planted young trees, and vegetable seeds, will observe that *now* is the time for attention to hoeing, spading, and cultivating their trees and garden crops. Keep down the weeds, while small—one day with the hoe when they are only half an inch high, is better than an entire week when they have attained the height of half a foot; and the crop itself will be double the size for being kept always entirely free from the choking influence of large weeds. The same advantage will result from a prompt mellowing of the surface—if never allowed to grow hard and crusted, the process is very easy. The boy, who, with so much torture, combed his head but once a month, could not conceive how any one could endure the process daily; and it is precisely the same kind of reasoning which those persons adopt, who think the labor of a single hoeing in a summer is as much as they can endure, to say nothing of doing it once a week.

Fire Blight.

David Thomas of Union Springs, N. Y., has kindly furnished us the following extract from a letter to a correspondent on this subject, which contains some interesting suggestions and statements.

"On the subject of *Fire Blight*, I observe much difference of opinion. I think I have seen FOUR kinds. 1. Insect blight. 2. Bark killed in winter. 3. Frozen when in full leaf. 4. Sun blight.

For more than twenty years my fruit garden was nearly (not quite) exempt from this malady; but the exception was so trifling that I considered my pear trees about as safe as my apple trees. In 1845, however, when we had severe frosts near the close of the 5th month, I lost some fine trees, and many others were much damaged. The effect of the frost was almost immediately visible. It fell on us like a shower, for we had nothing to compare with it since 1817. Besides the pear, the apple, cherry, and even the mountain laurel and silver fir suffered much—with this difference, however, the frozen sap becoming *poisonous*, was confined to the pear tree. All the damage sustained by the former was done at once—the leaves, twigs and fruit died; but what was left continued healthy; while blotches of dead bark appeared on the main trunk of the pear, showing that the poison had entered the circulation and was at work.

Late in the spring of 1846 we had also severe frost; and in 1847, early in summer, (later than all) we had another, though but few people knew of it, as it was not visible in the morning. I had covered most of my tender plants in the evening—it was so cold; but a south wind set in after midnight, and raised the temperature. A near neighbor who was up in the night, however, *found the grass crisp under his feet with frost*. The effect was soon visible. Many young pears and apples—black as death could make them—remained through the season on the dried twigs.

We want self-registering thermometers to tell tales of the night.

I have seen many trees killed by the hot sun, where the trunk or large branches had been exposed by injudicious pruning; but those cases had no resemblance to *frost blight*. Besides, several of my apple trees that suffered most from frost, were protected from the sun by buildings or umbrageous limbs, while on the sunny side no damage was received."

Under-Draining—Maryland Plan.

MESSRS EDITORS—Though the subject is somewhat trite, and the pages of the COUNTRY GENTLEMAN have lately contained divers short articles upon under-draining, yet I am induced to add the record of my practice and experience to that of others already contributed, because I have not yet read any account of a method pursued quite similar, in its details, to that of your correspondent.

It is hardly necessary to insist upon the propriety of determining the grades of all drains, whether superficial or subterranean, as an indispensable prerequisite to all subsequent operations. This is accomplished by running various trial lines of levels, from the highest to the lowest point of the area to be drained, and then establishing a uniform grade between these points, cutting through or passing round intervening obstacles, in as straight a line as the nature of the ground, the expense to be incurred, and other considerations may permit;—for, as a general rule, the sooner and the more directly the superfluous water can be conducted to its destination, the better.

When properly prepared for receiving the materials with which it is proposed to construct the under-drain, I have found it very advantageous to sink, at intervals, at the bottom of the ditch excavated, and particularly wherever there is an angle in the course of the drain, a small circular well of from two to three feet in depth, and of about eighteen inches inside diameter. These little wells I have walled up with brick or stone, carrying them up to within a short distance of the top of the ground, covering them over with large flat stones, and then placing a short wooden post or stone, upright above the capping stones, and filling up with earth around the post to a point a little above the surrounding ground. There is, of course, an opening left in the side of the well, of the same size as the calibre of the drain, and another, on the opposite side of the well, of equal size;—these openings being for the entrance of the water into and its discharge from each well. The object and advantage of these small wells is, that the current of water, as it passes on its course through the drain, in crossing the water in the wells, is slightly arrested in its flow, and, spreading over a wider surface, deposits a great deal of the earthy matters with which it may be charged, especially after rains, or in the early spring. These substances being carried by the force of the current into the well, fall, many of them, at once to the bottom, by the force of gravity, and others not so heavy, fall low enough, before they are carried across the well, to prevent their egress, and to insure their ultimate subsidence to the bottom. The object of placing the post or stone above mentioned, so as to be visible above the surface of the ground, is that the precise position of the wells may be ascertained, and by drawing a line between two such posts or stones, the exact course of the under-drain may be at any time determined, in case repairs are needed, or in case the very wholesome precaution of making a plat by course and distance, where the under-drains are extensive has been unfortunately neglected. And here I will remark, in passing, that some arrangement, either by plat or by monuments, will be found extremely useful, where the net work of drains is far spread, in order to know where to counteract the attacks of those natural sappers and miners, the great enemies of all under-drains, the musk-rat and the cray-fish.

When the wells become filled to the level of the entrance opening from the drain, with sedimentary deposit, by opening the earth from above, and removing the capping stones, they can readily be cleaned out, and things being replaced as before, they will continue their useful functions unimpaired. No one who has not tried this contrivance of the subterranean well, can have any idea of the vast amount of matter that is deposited in them, and how soon, especially in a drain of recent construction, they become filled with solid substances. This can easily be verified by any one who constructs them, if he will leave the wells so that they can be readily examined, at intervals, during the first year after they are made; and it will thus be made apparent how much they have contributed to keep the drains free and unchoked in every part of their course.

In making the under-drain where these wells were first used, it was at a time when draining tiles, at least here, were very uncommon, and it was desirable to make the drains as economically as possible. Stone I rejected, because it was too clumsy and unequal in surface, and therefore liable to cause stoppages in the drains, and could not be laid as rapidly as brick, and was, owing to the facility with which bricks could be obtained, very little, if at all, cheaper. In laying the bricks, I tried every experiment, placing them in every conceivable position, but in none to my own satisfaction. If but few bricks were used, then the drain could not be relied on as permanent, because the earth yielding at the bottom, or the weight pressing them together at top, there was danger of the falling in of some of the bricks, and so choking up the drain; or, if many bricks were used, then the expense became too great. Never having seen any draining tiles at the time the under-drain referred to was to be laid—now about fifteen years ago—but knowing very well what such tiles ought to effect, I determined to contrive something that should subserve the purpose. Accordingly, I made the models of the draining bricks or tiles described below, and a brick-maker here manufactured a large number to order, for the drain in question, but never, that I am aware of, for any other. Of the figures below, No 1 represents the bottom tile, and No. 2 the top tile reversed so as to show its construction. These figures, as well as figure No. 3, are drawn by a scale of eight parts to the inch, U. S standard.

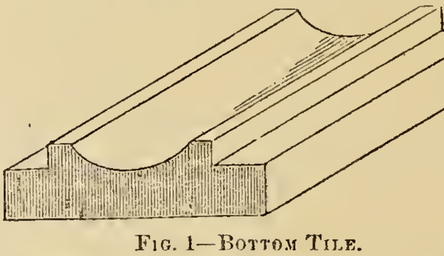

FIG. 1—BOTTOM TILE.

The sides of the drain are of ordinary paving or building bricks, eight inches long, four inches wide, and one inch and a half thick. The horizontal portion of the shoulder or jog, on each side of the upper side of the bottom tile, (Fig. 1,) is for the purpose of affording a firm and even base for the side bricks to rest upon, whilst the vertical portion of the same shoulder is for the purpose of preventing those bricks from receiving any lateral thrust *at bottom*, and that their equidistance may be preserved.

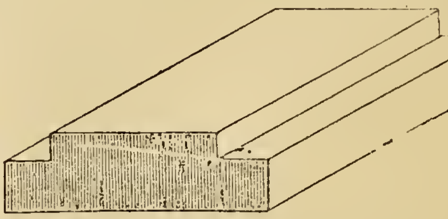

FIG. 2—TOP TILE—REVERSED.

It was thought best to leave the small space of half an inch between the edges of the concave channel and the horizontal line forming the upper edge of the vertical side of the shoulder, in order to give additional strength, and to diminish the risk of damage to the tile from rough handling

The top tile, Fig 2, which makes the cover, and is placed in position last in constructing the drain, has shoulders similar to those of the bottom tile; but, in this case, the vertical portions are for the purpose of preventing the side bricks from losing their equi-distance in consequence of any external lateral thrust *at top*.

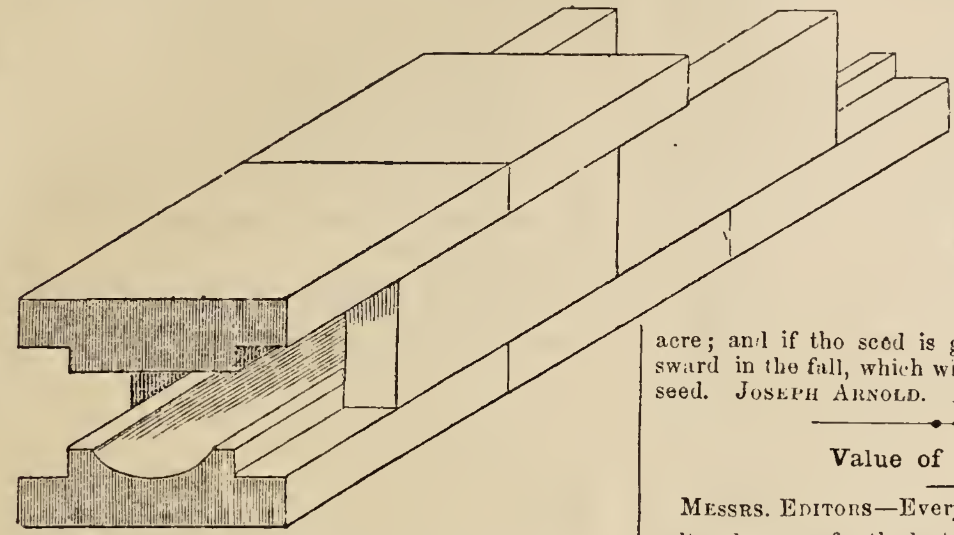

Fig 3—Tiles and Bricks in Position.

The mode in which the bottom tiles, the bricks forming the sides, and the top tiles, are laid, so as to form the drain, is shown in Fig. 3. It will be observed that the top and bottom tiles "*break-joints*" with the bricks forming the sides, thus giving great strength to the whole structure, and binding all its parts firmly together. In this particular, of "breaking joints," this mode of underdraining has the advantage over that in which the Sole, or the Horse-shoe tile are used.

The bottom tile has, underneath, a bearing surface of eight inches square, and is, in its thinnest part, one inch and a half thick, and in the thickest, two inches and a quarter,—the additional three-quarters of an inch being the heighth of the vertical portion of the shoulder. The horizontal portion of the shoulder is one inch and a half wide, being the exact width of the edge of the brick intended to rest upon it. The concave channel presents a surface when filled with water of four inches.

The top tile has an external surface above of eight inches square, and the same thickness upon its external edges as the bottom tile;—the concave channel is absent—and the projection downward, by which the shoulders are formed, has a surface of five inches wide and eight inches long, and projects three-quarters of an inch. Thus the vent of the drain is three inches and a quarter in height, with a width above the concave channel of five inches. The capacity of the drain could, of course, be increased, by setting the lateral bricks on end, but the calibre represented in fig. 3, was found sufficient. Should I have occasion to have any of these tiles made for future use, it is my intention to have the top and bottom tiles made precisely alike, with the same concave channels, and in this way the capacity will be increased without any sacrifice of strength.

My experience is, that, sooner or later, drains laid with stone, as ordinarily constructed, are liable to become choked; and that the best, and in the end the cheapest mode of making them is either with such tiles as I have described above, or else with the Horse-shoe or the Sole tile. My preference is for the Sole tile rather than for the Horse-shoe; especially where the calibre is oviform, that being the best form to be adopted in constructing all drains, whether of masonry or otherwise. When the mould is once made, the tiles I have illustrated above can be manufactured at about the same cost as ordinary brick. E. L. R. *Baltimore, Md.*

On the Use of Ashes.

Messrs. Editors—I have made use of ashes more or less for thirty-five years, and I find that I get the most profit from them, dry or leached, by spreading on the land before planting, at the rate of one bushel to the rod, together with fine manure in the hill, to give the corn the first start. In the fall sow wheat or rye the first week in October. Sow your grass seed in the month of March with a liberal hand, at the rate of 12 quarts of herds grass, one do. of red top and one do. of friz top to the acre; and if the seed is good, you will have a firm sward in the fall, which will far more than pay for the seed. Joseph Arnold. *East Harfortd, Ct.*

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Value of Cob-Meal.

Messrs. Editors—Every one who has read the agricultural papers for the last few years, has undoubtedly noticed among the many disputed questions which have been discussed in those papers, the one in relation to the value of *corn-cobs* as an article of food for farm stock, and also the replies which that question has elicited, both in the affirmative and in the negative.

The individuals who gave these replies to the question proposed, in both instances, were confident that their answer was the correct one, and that those who differed from them were in an error in their views on the subject: for A. had used cob-meal to feed his stock, and he knew it was worth considerable for *feed*. B. likewise had used it, and he was satisfied that there was no goodness in it. C. had also made some use of it, and he was confident that, not only was it worthless as an article of food, but it actually injured stock that was fed with it.

Now it is presumed that the reasons given by these different individuals, were supposed by them to be conclusive on the subject, and settled the matter in controversy without any further argument on the subject. Yet there are many persons in the world, and among them some *farmers*, who hesitate to take a man's *say-so* upon subjects of importance, unless accompanied by facts to substantiate that assertion.

I knew a farmer several years ago, who, after he had shelled his corn, carried the cobs seven miles to get them ground, for the purpose of feeding his shoats with the meal. He said that all that he fed to his shoats through the winter was cob-meal, except what swill was made in the house, and he never had his shoats do any better. The value of the "swill made in the house" was not stated, and his experience did not induce me to put my shoats on cob-meal diet.

I have known others, who would shell all of the corn (which they fed to their hogs,) by pounding it in a barrel, rather than to grind the cob with the corn, because they said it did the hogs more hurt than good.

The value of corn-cobs as an article of food, has, I think, at last been established, through the agency of that great *bugbear* of so many farmers, viz., chemistry.

In the Patent Office report for 1855, is an article on the chemical analysis of corn-cobs, by Dr. Charles T. Jackson of Boston, Mass., in which the amount of nutritive matter in the cobs of Indian corn is given—also the amount of different mineral salts in them. The analysis of one variety will show nearly the composition of the others.

Analysis of the Cob of "Dutton Corn."—This corn is cultivated in Massachusetts. It has a small yellow kernel, and a large cob, weighing 830 grains. Three hundred grains of the dried and powdered cob yielded, on analysis, of matter soluble in ether, alcohol and water, about 3¼ per cent of the cob.

	Grains, or pr. cent. of cob.
Fixed drying oil,	0.249
Sugar,	0.333
Dextrine (gum), albumen, and astringent,	2.700
Extractive matter,	3.282

When analyized for inorganic matters, the ash yielded about 1⅜ per cent. of cob, as follows:—

	Grains, or pr. cent. of cob.
Potash,	0.410
Soda,	0.174
Silica,	0.135
Phosphate of lime,	0.042
Phosphate of magnesia,	0.020
Phosphoric acid,	0.023
Oxide of iron,	0.038
Chlorine,	0.049
Unburned carbon,	0.127
Carbonic acid and loss,	0.255
	1.353

From the analysis made by him, of the cob of seven varieties of corn, he found from 3⅛ to 3¾ pr. cent. of soluble matter in them; this soluble matter I suppose may be considered exclusively nutriment, or food, as well as a small portion of the inorganic substances, as it is well known the bones of the animal system are composed principally of inorganic substances, most of them found in the above analysis.

It will be seen by the analysis given, that the corn-cob contains a small amount of food, and the thing to be decided by individuals is, whether it is an object to make use of substances containing no more value than cobs, to feed farm stock with.

This, I think, will depend on circumstances. No one will deny that it is for the interest of every farmer to provide an abundant supply of good fodder for his domestic animals, yet every farmer is in the practice of feeding his straw and corn-stalks to his stock, and I think if the true value of a large portion of this straw was known, it would be as small, if not less, than cobs.

For my own part, I do not think that it is economy for farmers to make much dependance on *straw* and *cobs* to winter their stock on; yet I think they both may be used to some profit, if fed in connection with other and better kinds of fodder. In winters and springs, when there is a scarcity of feed, and a supply of other kinds cannot be obtained except at exorbitant prices, and stock if sold at all, must be disposed of at ruinous rates, there would be much benefit derived from feeding cob-meal, as well as other inferior kinds of fodder. C. T. ALVORD. *Wilmington, Vt.*

MEASURING HAY.—The editor of the *New-Jersey Farmer* gives his rule, based on a large experience, for measuring hay. He formerly weighed his hay—but repeated trials taught him that this was unnecessary. Take a mow which has lain through the winter, and ascertain its amount in cubic feet, (multiplying its width by its depth, and that product by its length,) and then divide by 700, and the quotient gives the number of tons. The upper third takes 800 feet to the ton; the lower 600 feet, making the mean 700 feet. If the mow is only five or six feet deep, however, it takes an average of 800 feet to the ton.

SLOW TO MOVE.—About two years ago a series of articles was published in the *Ohio Farmer* on the subject of draining. The editor says that he had hoped that, ere this time, the manufacture of draining tile would have been introduced in different portions of Ohio; but up to this moment, there is not a single tile machine in that State, so far as he knows. He advises draining with stone or brush.

Domestic Economy.

EDITORS OF THE CULT. AND CO. GENT.—I send you six valuable recipes, for the benefit of yourselves and correspondents. J. F. D. L. *Greensborough, Md.*

No. 1—Curry Powder.

Curcuma, ½ ℔.
Powdered Ginger. 1 ounce.
Black Pepper, 2 ounces.
Cummen Seeds, 4 ounces.
Cardamon Seeds, 4 drachms.
Powdered Mace, 4 drachms.
Cayenne Pepper, 1 ounce.

Mix all together in a very fine powder.

No. 2—Extract of Celery.

Celery Seeds, ½ ounce
Brandy, 4 ounces.

Digest for two weeks and filter.

No. 3—Extract of Rennet.

Fresh Rennet, 12 ounces.
Fine Salt, 2 ounces.
Proof Spirits, 2 ounces.
White Wine, 1 quart.

Digest for 24 hours and strain.
A quart of milk, requires 2 or 3 teaspoonfuls.

No. 4—Burning Fluid.

Alcohol, 3 gallons.
Camphine, 1 gallon.
Gum Camphor, 1 ounce.

Dissolve the camphor in the alcohol, and then mix.

No. 5—Water Proof for Boots.

Rosin, 4 drachms.
Lard, 1 ounce.

Mix and melt them together over a slow fire.

No. 6—Black Varnish for Leather.

Gum Shellac, 1 ounce.
Gum Juniper, 1 ounce.
Lamp Black, 1 ounce.
Rosin, 1 ounce.
Venice Turpentine, ½ ounce.
Spirits of Wine. 1 ℔.

Mix and let it stand in a warm place for a few days.

Hard Sap.

MESSRS. EDITORS—My wife desires me to answer for her the inquiry in the Country Gentleman, as to "how to make hard soap," by giving you a recipe which she says provides the "*very best.*"

Take 3 pailfulls (twelve-quart pails) of common soft soap, and 5 pints of salt. Heat them together and stir them well and thoroughly. Set the mixture aside to cool and harden. Take the hard soap from the top, and put to it one and a half pailfulls of *weak lye* and two and a half pints of salt. Heat, and stir well together, and cool as before. Again remove the soap, melt it and pour it into any shaped moulds you choose. AGRICOLA.

How to Harden Tallow.

MESSRS. EDTIORS—I send you a recipe for hardening soft tallow, so as to make mould candles.

For 30 pounds of tallow take half a pound of alum—dissolve in a little water—(alum will not melt in tallow)—pour into the tallow—let it come to a boil—skim and then add two pounds of beeswax. The alum cleanses the tallow from all impurities. With the addition of the above you can add one quarter lard to usually hard tallow, but more beeswax will do no harm. C. S. HARD. *Arlington, Vt.*

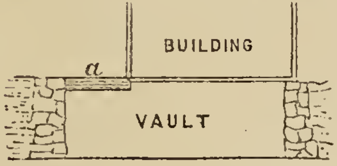
Carrot Pie.

Wash and scrape the carrots, boil till soft, sift and prepare like pumpkin pies; many think them superior to pumpkins—they may be made with or without eggs. E. E

Management of Home-Made Poudrette.

We have frequently had inquiries on this subject, and in answering that of a subscriber, now before us, we may possibly repeat some hints given before, but we hope they will not come amiss. In order to manage night soil to the best advantage, every facility should be procured. One of the most important is a provision for its removal. This may be effected in two ways. One, is to provide a tight plank box, say a foot deep, on scantling runners, to which a horse may be readily attached, and the whole drawn off to the compost heap. It may be readily emptied, by turning it over by means of a chain attached to a hook or bolt on one side, with the assistance of two or three hands. The runners should rest on two pieces of durable plank placed under the privy, to prevent decay on the ground, and to facilitate drawing off. The ground back of the building should be a little lower if practicable, to give space for drawing out and returning this box. A door, with hinges, so as to open upwards, shuts this box in closely. Daily additions of some drying absorbent will keep the whole in a condition easy to be removed and worked up into a compost. Charcoal, pulverized, is perhaps the best absorbent, but dried and powdered loam, coal ashes, or dried peat or muck, answer an excellent purpose. The importance of small daily additions, so as to become thoroughly intermixed, cannot be too much insisted on. The amount should be such as to destroy all odor and to render the compound easily reduced to powder In order to render the box durable and tight, it should receive two or three coats of warm gas tar, which for this purpose has been found to answer admirably.

The next best arrangement, where a box is not or cannot be used, is to have the vault extend backwards two or three feet beyond the building, so that the contents may be easily shovelled out. The annexed figure shows a section of this arrangement, *a*, being the trap-door covering that part through which the deposits are drawn or thrown out.



Warming and Ventilating.

Editors Cult. and Co. Gent.—I find in the April No. of the Cultivator, that P. R. A. wishes to learn all he can on the subject of warming and ventilating his house, that he is about to build, combining convenience, safety and economy.

I know of no better way to warm the rooms on the ground floor than by means of good stoves. I would rather keep five or six stoves in operation than one furnace.* Chambers can be warmed by means of Registers over head, in the sitting-room, for instance, going through the chamber floor into as many rooms as come in part directly over it. I have two rooms over my sitting-room that I can warm in a very short time as comfortable as the sitting-room, by opening the slats of the Register. I keep the heat below by closing them. One chimney at least should be commenced on the cellar bottom, so as to ventilate the cellar, by making a hole 5 or 6 inches square near the floor, to carry off the bad air coming from vegetables, decaying matter, &c. My chambers are ventilated through the tunnels, the lower rooms by Registers, and the upper ones warmed by them. They are of wood; a plain box deep enough to go through the chamber floor between the joists, and come down so as to have the moulding on the bottom of the Register's catch, or lap on the plastering. The moulding should be about two and a half inches wide, or according to your taste, serving as an ornament, and to put the slats in, also covering the ragged edges of the plaster, when they are put in after the house is built,—in that case, the hole through the lath and plaster should be cut nearly half an inch larger than the box, and just as large through the floor. The slats I used were blind slats, say four or five to a register, opening and closing them just as blinds are. The top of the box should be smoothed off level with the floor, and hard wood slats, three-eights of an inch in thickness, and one inch and a quarter wide, should be put in to keep people from stepping through, or a cast-iron grate, just as one fancies. A good many people here have had them put in during the last winter, and taken down their chamber stoves, giving good satisfaction in all cases. All the objection that I have heard was, "that the children would n't say good night till they got up stairs, so they could say it through the register." G. H. Akins.

Berkshire, N. Y.

Early Bearing Varieties of the Apple.

Messrs. Editors—I have been a little surprised to see the great number of blossoms on our three year old apple trees in the nursery. I counted a short row of Early Harvest, and out of 100 trees, 25 are in bloom; of Sweet Romanite 166, 77 in bloom; of Virginia Greening 258, 111 in bloom. These are root-grafted; the root four years old, the tree three. The Virginia Greening, sometimes called Ross' Green, is not generally cultivated. I do not find it described in Thomas' Fruit Book, but in Elliot's it is described as "not quite very good"—we call it very good; and Elliot says its season "from December to March"—we say, March to August; a very long keeper, a hardy tree, and a fair grower. I also find two year old trees of this variety in bloom. With all these qualities, we esteem it very highly. The Sweet Romanite is a very hardy tree and thrifty grower; the fruit a long keeper—good for baking in spring and summer. The Sweet June is also a thrifty grower, hardy, and an early bearer. Some of our three year olds are now in bloom. The most thrifty growing tree we have is the White Rambo—nine feet high in three years—whole rows will average eight feet. This new variety was described in the Country Gent. last fall or winter.

I see a few blossoms on my peach trees. Is not this very remarkable, after such a winter, touching 30° below zero? Though I believe it was not below 26° on this high land.

It is often suspected by eastern men, that fruit trees grow too fast in the West. Well, they are like the Durham cattle, they fill the barrel when young, and I have no doubt they will fill twice as many barrels in their life time as an eastern slow grower.

It is often remarked by eastern tree-peddlers in the West, that our western trees would not bear as young as the eastern, because the scions are generally taken from nursery trees which are not bearing. Our scions were nearly all taken from young nursery trees. Can any one give a better account of scions taken from old trees? We should be glad to see some other experience on this subject. I place these facts over my own name, and your paper circulates largely in my neighborhood, besides I have plenty of witnesses. Suel Foster.

Muscatine Nursery, Iowa, May 25.

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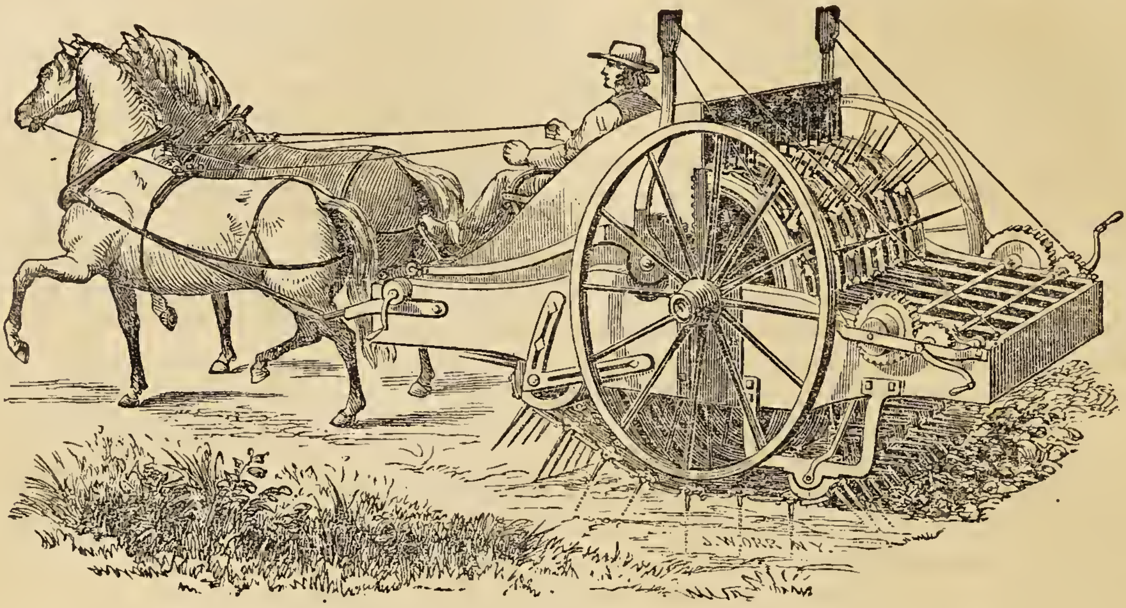
* This remark is correct as applied to a *wood* furnace; but a coal furnace is more easily managed. Eds.



EVANS' ROTARY TERRACULTOR.

We present above a cut of this implement, the inventors and owners of which are sanguine in their hopes of its ultimately superseding the plow as a means of preparing the soil for crops. Some of our readers may perhaps have seen it in operation at the last State Fair at Watertown, where it was tried with very good success. It is intended particularly for prairie soils, where a large surface is to be tilled, and labor is expensive and difficult to obtain. It is claimed that with a four horse team and one driver, the Terracultor "will thoroughly pulverise the earth to the depth of ten inches and the width of four feet—leaving the soil mellower than it is now usually found after plowing, sub-soiling, cross plowing and barrowing—at the same time *sowing the seed*, where seed sowing is desired—thus performing the equivalent of four or five of the present processes, and four times the quantity at each passage over the ground—completing the whole routine of *preparing land for crops* (when seed is broad-cast,) *by passing once over the field*—to the extent of from *six to eight acres per day*—and without the damage to subsoil occasioned by the pressure of the plow and subsoiler." Persons interested can obtain further information by addressing Henry O'Reilly, Esq., either at Chicago, Ill., Eddyville, Iowa, or New-York City.

The Bean as a Fallow Crop.

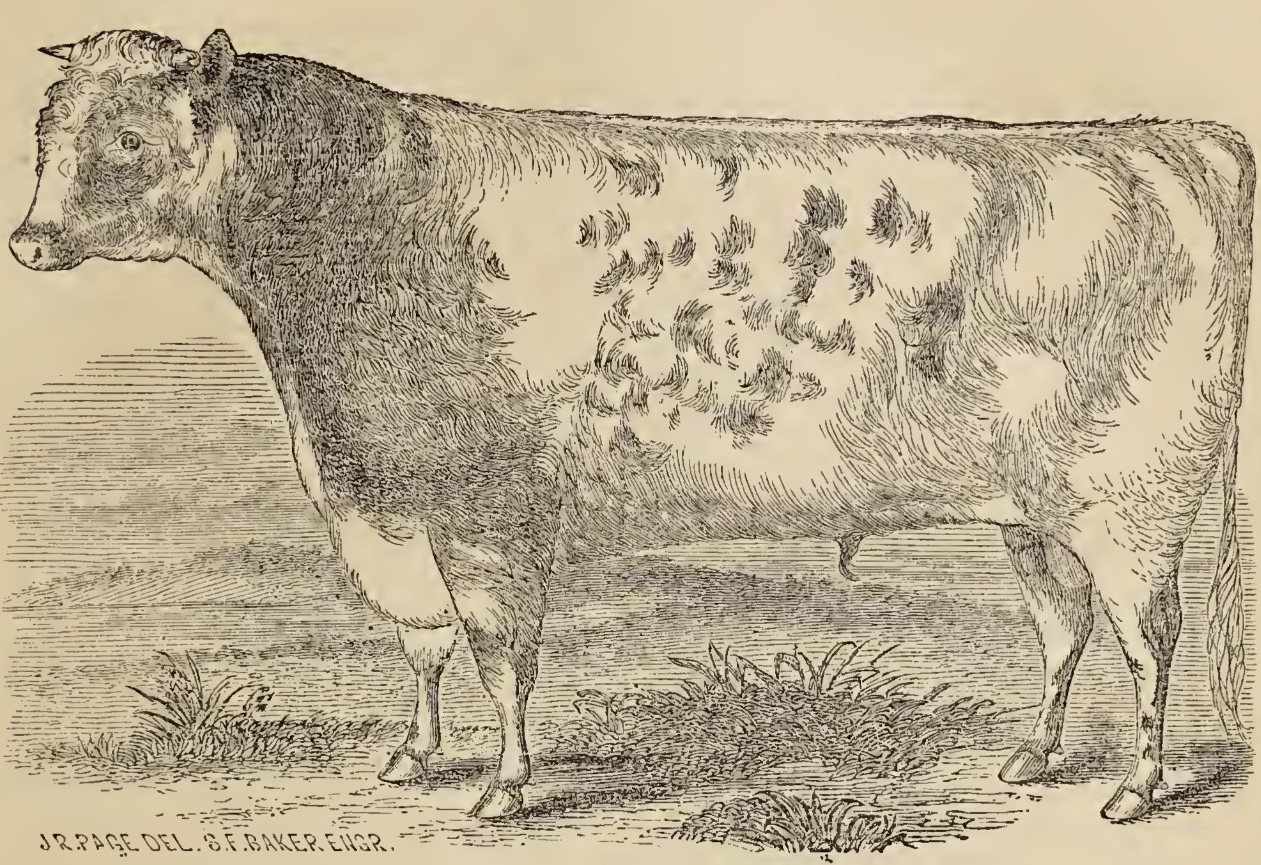
Since the great loss of time occasioned by the adoption of naked fallows has been found by farmers to be unnecessary, several modes of cropping the land before sowing wheat, have been variously substituted, with greater or less success. Peas were formerly much esteemed for this purpose, but of late years this crop has deteriorated in many localities. Corn, which some years since was extensively adopted by many good farmers, has fallen into disuse since the insect has rendered it so imperative to sow early, and in the best prepared soil. It is not improbable, however, that by planting very early varieties, it may ripen sufficiently before the close of summer to enable the farmer to sow his wheat early enough, and to apply manure before plowing, if the corn has not been manured in spring.

At present, the *bean* crop seems to stand at the head of all others for this purpose, in some districts, if suitable varieties are chosen, and proper management given. We are informed by Joshua Mekeel of Tompkins Co., N. Y., that the Morgan bean of Ohio has of late years been cultivated with great success in his neighborhood. It is a large white bean, of the bush form, exceedingly prolific, and sells for a good price in market. It does best on a strong, rich soil, and is cultivated both in hills and in drills, the latter being preferred, and the crop is easily planted by means of a horse planting machine, about the usual time for planting corn. It ripens early enough before the close of the summer months, to admit of the easy removal of the crop, and the proper manuring and cultivation of the soil before sowing wheat. The product varies from 25 to 50 bushels per acre. When first introduced, the price of this variety in market was about one dollar per bushel, but of late years one dollar and a half has been the more common value. It is bought chiefly in New-York for supplying ships. It is also found to serve an excellent purpose as food for sheep and lambs, which thrive admirably upon it, and which are the only farm animals that will eat beans without first grinding and mixing with other grain.

Remedy for a Wet Soil.

Messrs. Editors—Please give me your opinion as to the best mode of cultivating a meadow, which has a clay subsoil, and is usually too wet to work in any kind of season in the spring, but does not stand a drouth well. It has been almost impossible to get a good stock on it of late years; the young plants are either killed by the drouth, or heaved out by the frost during the winter. I suppose you will say, drain it; but will it pay when the land is worth but $20 per acre, wages very high, no railroads near, and generally rather a poor market for produce? What would be the effects of a subsoil plow? A Franklin Subscriber.

The effect of the subsoil plow on this land, would be to loosen it *temporarily*—but as the whole matter thus loosened would be thoroughly soaked by water the following fall and spring, it would become compact-


J.R. PAGE DEL. S.F. BAKER. ENGR.

DUKE OF OXFORD.

Winner of first prize at Elmira, in 1855, and also winner of first prize at the Madison Co. Fair, same year. Roan; calved July 27, 1855. Bred by Col. L. G. MORRIS, Fordham, Westchester Co., N. Y. The property of S. P. CHAPMAN, Mount Pleasant Farm, Clockville, Madison Co., N. Y. Got by Duke of Gloster, (11382.) Dam [Oxford 17th.] by Lamartine, (11662.)—g. d [Oxford 10th,] by 3d Duke of York, (10166.)—gr. g. d. [Oxford 5th.] by Duke of Northumberland, (1940.)—gr. gr. g. d [Oxford 2d,] by Short Tail, (2621.)—gr. gr. gr. g. d. [Matchem Cow,] by Matchem, (2281.)—gr. gr. gr. gr. g. d. by Young Wynard, (2859.)

Mr. CHAPMAN has recently made a large addition to his herd in the purchase of six of the cows imported by Messrs. Morris & Becar. These animals were purchased of Mr. Thorne some six weeks since, and may now be seen at the Mount Pleasant Farm. They are Romelia, Apricott, Lady Boothe, Garland 2d, Jacintha and Beauty. Apricott is in calf to Duke of Gloster (11382.) The others are all bred to Mr. Thorne's 2d Grand Duke (12961.)

Mr. Chapman requests us to say that it will give him pleasure to meet persons at the railway station, (Canastota,) who may wish to look over the herd. The farm is six miles from the station.

ed together nearly as closely as ever. If it were *thoroughly underdrained*,—say with a good three feet drain every two rods, cut the shortest way down the hill, in whatever direction this may be,—the water would pass off rapidly through the subsoiled and loosened particles, into the channels of the ditches, before it could accumulate enough to form a mortar-bed of the soil. In this case, the subsoiling need not be repeated for years; or, if a repetition should prove necessary, the slight adhesion of the particles would render the operation a very easy one. Subsoiling greatly facilitates the drainage of the land, if a channel for the escape of the water is near at hand; but does not help much, if the water must remain.

We have no doubt that the thorough drainage of the land in question would remove all the trouble—would render it loose and easily worked in the spring, and that the increased earliness alone in the planting of the crop would in a few years repay all the expense; the increased *amount* of the crop, would again repay it; the economy of labor, occasioned by a loose, friable earth to work, instead of a hard, cracked, and crusty surface, would still again repay it; and the advantage the work well in one case, and badly in the other,—of being able to commence labor on it *early*, and not being excessively hurried at the last moment,—doing would not be the least advantage. Altogether, the real value of the land, so far as profit is concerned, would be far more than doubled, the very moment the draining was completed. There is still another advantage we have not mentioned; and that is, while the drained land would be relieved of its surplus water, it would endure severe drouth incomparably better, if kept deep and loose, than if baked and hardened as it must be without draining.

We should much prefer the profits of *one* well drained acre of such soil, to *three* without it, and if we could effect the operation in no other way, we would sell two-thirds of it. If it is now too poor, manure will be of little use applied to a wet and soaked soil; while instances may be numerously cited of the great advantages of enriching a drained soil, and cases have occurred where the manure which had been for years unsuccessfully applied to soaked lands, has been immediately made useful in a high degree by the simple process of ditching.

The Apple Borer.

Messrs. Editors—In the Co. Gent., of the 6th of April, is an interesting article, devoted to the aforesaid famous (or rather infamous) insect, by T. V. Peticolas, Mount Carmel, Ohio.

Presuming that all your readers wish to hear every theory concerning this pestiferous entomological character, in order that they may "prove all things and hold fast that which is good," I will mention a theory which has some respectable adherents, besides a good deal of plausibility. I do this, not with a view to controversy, but to elicit truth. Some affirm that the borer never attacks a tree except at a point where the bark at least is already dead; and that instead of the dead bark and wood in the vicinity of its depredations being the effect, it is in fact the cause of the attack. Of course after the borer once obtains a lodgment in the tree it spreads the mischief and hastens the decay of the tree. Those who adopt this theory, say that the borer generally attacks the tree on the south-west side; and the reason assigned for this, is, that while the tree is young, and the branches few and small, affording but little shade, the bark is frequently killed in spots by the afternoon sun; and as soon as there is the smallest dead spot to be found, the borer is into it, and once there, he spreads disaster all around him.

Assuming this theory to be true, the remedy proposed is simple and obvious. First, branch the tree as low as practicable; and secondly, in planting, lean it slightly to the south-west. These two precautions will afford very great protection from the scorching rays of a south-western sun. J. E Spilman. *Nicholasville, Ky.*

A Garden for a Farmer.

At this busy season of the year, I need not waste time in urging every farmer to attend to his garden, and if he has none—which I can hardly conceive of an intelligent man—then let the error be rectified immediately. There are doubtless many farmers who have gardens of greater or less extent, who by reason of an inconvenient mode of arrangement are subjected to more trouble in their cultivation than necessary, and to such persons I wish to make a few suggestions, which are the result of my own experience in a vegetable or farm garden. Most gardens being either square or of some rectangular shape, the first thing after a deep and thorough plowing, or if the plot be small, a spading of two spits deep, is to lay off a border not less than three or more than five feet wide, all around next the fence, and a path sufficiently wide for a wheelbarrow—say 4 feet; this border to be cultivated this season with peas, beans, &c., and in the fall to be filled up with currants, gooseberries, raspberries, or if the garden be an acre in extent, then the border may be made a fruit border and filled with dwarf pear, cherry, and other trees. I remark here a general error in making paths in a garden; they are in wet weather mere ditches, and serve only two purposes—the one to drain off the moisture which should be retained in the seed-beds, and the other to make the paths impassable after a shower; moreover it is much more troublesome to keep a sunken path clean. My practice, therefore, is where walks are graded, to make them in the center about two inches higher, where they are five feet wide, than the adjoining beds. In this way they are always dry, and if instead of gravel they are made of earth, as is usual in farm gardens, I raise the walks at first about three inches in the middle, and roll them with a hard roller, —which any farmer can make from a log at his woodpile in ten minutes,—and I find them when solid about the right height—say two inches.

After having laid off the border and paths, I make one main walk through the center of the garden—six feet wide if small, and ten feet wide if so large as to require the use of a cart—which should have a gate at each end. I then proceed to lay off drills for the different vegetables I desire to cultivate, at right angles to this main walk, as follows: I procure a board 1 foot wide and from 13 to 20 feet long, and work it off on both sides into spaces of six inches; I lay this board down next the border path, and my first drill, which I work along the edge of the board, will be a foot from the path; the marks on the board will guide in sowing the seed at equal distances. When the first drill is sowed the board is turned over, which gives the line of another drill the width of the board, and so on; in this way I sow the whole garden without any paths other than the border and main path. In the weeding and subsequent cultivation of the garden, the boards are used in the same way as in sowing, and all trampling of the earth or crushing of the young plants is avoided.

It is customary to make a fruit border along the main walk, of currants or other small fruit. This is objectionable, because they are found to be in the way of plowing, mowing, and other operations in the cultivation. I am a firm believer in deep and thorough plowing, and I apply my principle to practice in my garden in this way. I trench and dig one-quarter of it to the gravel—about three feet; mowing at the same time each year, so that every fourth year the whole garden has been subsoiled. This course enables me to compare results, one-quarter being subsoiled and three-quarters cultivated with plow and spade in the usual way.

By the above described mode it will be noticed that only two walks are required, and the space and trouble of all smaller paths avoided. J. S. Shipman. *Farmingdale, L. I.*

Culture of the Pea Nut.

Messrs. Eds.—I saw in the Country Gentleman of April 23d, a few lines soliciting information in regard to the cultivation of the Pea nut, (or as we here call it the Ground pea,) which, though it may be answered before this, yet as they are cultivated to a considerable extent in this and the adjoining counties, perhaps two answers will be better than one. My manner of cultivation is as follows:

First choose a clean piece of land, *naturally* rich—a medium soil, neither stiff nor very light; plow and harrow well; then mark off rows as shallow as possible, two feet nine inches apart, and plant the seed eighteen inches apart in the rows with one or two *kernels* in the hill (which will be about 1½ bushels to an acre), covering not more than one inch deep. A liberal application of lime or ashes sowed over the land before harrowing, will be found highly beneficial to the crop.

Time of planting from the 1st to the 20th of May.

Plow and hoe for the first time, as soon as necessary; for the second and last time as soon as the bloom commences to appear (which we never cover), perfectly leveling the ground. Harvest before frost, when if properly cured, the vines will be excellent fodder. The pea nuts should be perfectly dried before being housed, or they will mould. F. L. M. *Cedar Grove, Surry Co., Va.*

Another Cure for Warts.

Messrs. Editors—I notice in your last Cultivator, an inquiry from R. W., for the cure of warts on horses. As I have been successful in several cases, permit me to inform him of my plan of treatment, which is as follows: First cut off the wart with a sharp knife; then wash it thoroughly with a strong solution of copperas, which will prove an effectual cure. T. K. Reddish *Warren Co., Ky.*

Dairy Management and Butter Making.

We trust that most of the readers of the COUNTRY GENTLEMAN have read with care and attention our report and review of Mr. HORSFALL'S feeding and management of his cows, both for the maintenance of their condition and for the greatest yield of milk and butter. We do not suppose there are, comparatively speaking, many of our American farmers that can or will pursue the same course in the care and management of their dairy stock that Mr. H. does; but his statements afford many hints and suggestions that may be profitably adopted by farmers and dairymen in this country. As a general thing, our farmers are sadly negligent in the care of their cows. As far as our acquaintance among farmers extends, we find but very few that make any provision for extra feeding of their cows during the usually dry and warm months of August and September. The short dried herbage of the pasture is all they have to subsist upon. Under such treatment there is always a falling off of both flesh and milk. Some few farmers of our acquaintance feed their cows with green corn stalks; but this is too often done without either system or regularity. Irregular feeding is rather detrimental than otherwise. Some few others sow corn broadcast, or drill it in rows for soiling, or rather feeding their cows night and morning. We are not sure that green corn fodder is the best kind of succulent food for milch cows.

A few years since, the Essex Co. (Mass.) Ag. Society appointed an able committee to report on the "comparative value of crops." One of the committee, Mr. WARE of Salem, had had great experience "in distributing several tons of this kind of fodder to a flock of thirty or forty cows, *daily*, for several successive years, during the season of its production." He had great doubts of its value, especially in increasing the quantity of milk. But the committee say, "We have found the *sugar beet* one of the very best vegetables for the production of milk; far superior to the carrot." This Report dated Nov, 1848.

In the Essex Co. Ag. Transactions of 1853, is published a somewhat lengthy account of experiments by W. F. PORTER of Bradford, Mass., in feeding milch cows with different kinds of food, in addition to hay. Mr. P. regularly sells his milk in Haverhill. But we must greatly abridge his report He says, "In feeding twelve new milch cows (in January,) with two and one half bushels of carrots, morning and night, for seven days, the increase of milk during the week was not quite two gallons over the yield when fed on hay alone. The next seven days fed only hay. The result was, no diminution. Then fed with carrots as before, the next seven days, and there was less than one gallon increase." He came to the conclusion that carrots were not worth raising for milch cows.

The next winter, (25th December.) Mr. P. commenced a series of experiments by selecting three of his best cows, as nearly equal in size, condition, and goodness as possible; two of them dropped their calves 25th of November, the other 2d December. The experiment was continued eight weeks, giving to each cow the same money's worth of the different kinds of feed by weight, as the same cost at the time, viz: shorts $26 per ton—oil meal $30 per ton—Indian meal eighty cents per bushel of fifty pounds—rye meal $1 per bushel of fifty pounds—giving to each cow fifty-two and a half cents worth per week—seven and one-half cents worth per day.

The first week forty-two pounds of shorts were weighed for each cow; fed night and morning, being about four and a half cents each time, wet with six quarts of water two hours before feeding.

Second week, thirty-five pounds oil-meal per week, being about four quarts per day; fed same as shorts.

Third week, thirty-two pounds thirteen ounces of Indian meal for each cow, wet and fed the same, being about three quarts per day.

Fourth week, twenty-six pounds four ounces of rye meal for each cow, being about two and a half-quarts per day, wet and fed as above.

The result of these experiments showed that Indian meal possesses the highest value for producing milk, differing however, but little from oil meal.

Three hundred and fifty pounds of English and seventy pounds of salt hay were weighed and fed to the cows each week. When the cows were fed on shorts and rye meal, the whole quantity was consumed; when fed on oil and Indian meal, an average of fifty eight pounds of English hay per week was not consumed.

The above statement indicates that the oil and corn meal contained more nutritive matter than the same money value of shorts and rye meal, beside affording more milk.

But Mr. PORTER'S experiments relate only to the increase of milk in quantity. Nothing is said in reference to the condition of the cows, or of the quality of the milk for butter. But still they afford some useful hints to those engaged in producing milk for sale. The relative prices of the several kinds of food used varies greatly in different years, and in different places—therefore Mr. P's experiments show which kind of meal may be most profitably used in different places and seasons. The report of the committee alluded to in this, seems to refer principally to the production of milk. Whether cornstalks increase the "flesh and tallow" of the cows, or the quality of the milk is not fully ascertained. We are aware that farmers who have experimented with green corn fodder, carrots, &c., differ much in their opinions, in regard to the use and value of them in the production of milk and butter.

Mr. HORSFALL, in his investigations, had several objects in view, viz., to keep up or increase the condition of his cows; for the greater production of milk and butter, and increased value of the manure, and a satisfactory profit. How well he succeeded in these objects we need not here repeat, for they are already written in the columns of the Co. Gent. But we wish particularly to call the attention of dairymen to the fact that "the food which Mr. H. was led to fix upon to carry out these purposes after various modifications, has for the last two seasons consisted of rape cake, five pounds, and bran, two pounds, for each cow, mixed with a sufficient quantity of bean straw, oat straw, and shells of oats, in equal proportions, to supply them three times a day with as much as they will eat. The whole of the materials are moistened and blended together, and after being well steamed, are given to the animals in a warm state. In addition, from one to one and a half pounds of bean meal is given to each cow, in proportion to their yield of milk: those in full milk getting two pounds per day, others but little; the bean meal is mixed with the steamed food on its being dealt out separately. When this is eaten up, green food is given, consisting of cabbages from October to December, kohl rabi till February, and mangold till grass time. With a view to nicety of flavor, green food is limited to 30 to 35 lbs per day to each. After each feed, four pounds of meadow hay, or twelve pounds per day, is given to each cow, and they are allowed water twice per day to the extent they will drink."

We think it is a question of some interest to dairymen near cities, manufacturing places, and large villages, (who generally obtain an extra price for "family butter,") how far they can profitably in their dairy management, pursue a similar course to that of Mr. Horsfall's. To strictly follow his system of feeding, here, is out of the question, for we have not the rape cake, (English Horse) bean straw or bean meal—but we have substitutes that perhaps will answer equally well.

In a late number of the *Irish Farmer's Gazette*, "A Subscriber" inquires the comparative value between rape cake and oil cake for feeding lambs and sheep, and also their comparative value when given to stall-fed cattle. Answer: "There is but trifling difference in the composition of rape cake and linseed cake, so their nutritive value is much the same, but cattle do not take it so readily as they do linseed cake, from its flavor."

There are many sections of our country where oil cake can readily be obtained, which, doubtless, will answer the purpose as well as rape cake.

According to Mr. PORTER's experiment, Indian meal, for the production of milk, is a little ahead of oil cake, and perhaps might answer in this system of feeding quite as well as either of the cakes. Instead of bean straw, we do not see why early cut, well cured clover hay might not be as good as the bean straw; we have the oat straw and chaff; pea or oat meal might take the place of the pound or pound and a half of bean meal; cabbage and rape can be grown here as well as in England. Turnips are objectionable on account of their flavor. The kohl rabi, we *know*, can be profitably grown here, and much cheaper than turnips; and to carry out the system, we can raise mangolds, grow hay, and have water.

The committee alluded to in this, said, 'we have found the *sugar beet* one of the very best vegetables for the production of milk." Possibly the great amount of saccharine matter contained in this beet, may have a favorable effect in the production of milk. If so, perhaps the *Chinese sugar cane* and the *Doorah corn*, from the sweetness of the juice of their stalks, might prove a valuable addition to the steamed "bill of fare" we have sketched out.

We trust many of our intelligent, enterprising farmers and dairymen will give Mr. Horsfall's system a fair trial. We know there is more care and labor in thus managing a dairy, than there is usually bestowed upon them by our farmers, but yet, notwithstanding, it may pay better in the end.

Sawdust for Litter.

MESSRS. EDITORS—Much has been said in the agricultural papers of late in favor of sawdust for littering stables, until it seems to be generally conceded to be a valuable discovery. That it may act as an absorbent and also make a comfortable bed for animals may be very true, but whether it will increase the value of the manure heap is a point which seems for the most part to have been lost sight of. It is true the public have been cautioned against using *pine* sawdust. But what is there peculiar to pine that would make it injurious to the manure? I believe that sawdust from any variety of wood, applied in its fresh state to land, would be injurious, and the man who should attempt to grow an acre of *grain* with it would require as many loads of it as it would of "snow-balls to boil a tea-kettle." I have noticed in two instances where timber had been hewed and framed, that nothing would grow for a year or two after, although the land was otherwise in good condition and well cultivated. The timber in both cases was mostly oak, so that the tannin might perhaps have had some influence. Yet a similar effect to some extent, is produced by the application of chip manure not thoroughly decomposed But I have yet to learn that any kind of wood, pine included, does not make good manure when well rotted, for any kind of land or crop.

Is not the injurious effect of pine owing to the acid of the wood? If so, then chestnut must be much the most injurious. But will not the mixing it with the stable manure prevent the evil? I think it may, if the heap is allowed to ferment, being kept the meantime thoroughly wet. It is a great mistake of many farmers to allow their manure to "fire-fang," and where water is convenient, is entirely unnecessary in order to a perfect decomposition. My practice has been with coarse strawy manure, to pile it up with swamp muck in alternate layers, in the proportion of one load of the former to three of the latter. Then by attaching a pipe to the one that supplies my water trough, wet every part thoroughly. Fermentation soon takes place, and in a few weeks does the work as effectually as "Bommer's method," and at a much less cost. It is sometimes necessary to apply the water the second time. By this plan the ammonia is not lost as is the case when a dry fermentation is allowed, neither does the heap dwindle down to a mere point I think that even sawdust might by this method be made into a valuable manure whether it had been used for a litter or not; but without decomposing in some way will not those who apply it very freely to their land be likely to find their crops rather short for the first year or two? H. V. WELTON. *Waterbury, Ct.*

Wolf Teeth Once More.

MESSRS. EDITORS—Having noticed in your issue of the 14th an article on wolf teeth in horses, I take the liberty of offering you my experience and convictions on the subject.

In the spring of 1851, I noticed a weakness of the eye in one of my horses, (a mare of five years,) but thinking she had injured the organ in the manger, applied simple remedies, such as cold water, &c, with little effect. The weakness continued, off and on, during the early summer, sometimes disappearing, and at others returning. I left home for Virginia in August, and soon after heard that she had irreparably lost one eye, and that the other was likely to follow. Happening one morning to be about the stables at Sweet Springs, I saw a horse undergoing an operation which, upon inquiry, I was told was that of removing wolf teeth. I had heard of this before, but confess I was always as great a skeptic as on the subject of hooks.* Knowing, however, what horse masters the Virginians were, I conversed with the operator, the result of which was a determination to try the experiment upon my return home. Arriving about first of October, I commenced an examination, and consulted a naturalist as well as a farrier. The former hooted at the idea as preposterous, bringing to his aid Cuvier, Agassiz, and a host of others. Not satisfied however, to lose my pet, I set about extracting two small teeth, situated between the first grinder and the tusk, and in juxtoposition to the former, apparently out of place, and more like excrescences of bone The task, was an easy one, being performed with a pair of forceps, the animal evincing no other symptoms of pain than a toss of the head. To my delight I found the weak eye gaining strength every day till perfectly restored. Alas for the other, 't was too late.

I make this statement for the purpose of eliciting discussion and information upon the subject, should you deem it worthy a place in your journal.

Will not some of your correspondents give us a chapter on hooks,* and another some information as to the prevention or cure of hollow hoof? CHARLESTONIAN. *South Carolina*

HEREFORD CATTLE—SANFORD HOWARD, in the last No. of the Boston Cultivator, speaks of this breed of cattle as follows—"We believe the Hereford breed of cattle, for the northern section of the country, especially where beef is a prominent object, is one of the most useful that has been introduced. We believe that no breed has given better satisfaction wherever it has been tried They are more hardy than the Short Horns, do better on short or coarse fair, and make better beef. As to dairy properties, they are as good as any breed which has an equal tendency to fatten. The half-bloods give good satisfaction as milch cows."

Value of Different Kinds of Food for Stock.

Messrs. Editors—I frequently notice in the Country Gentleman, inquiries about the value of various kinds of food for stock, and also the comparative value of different articles of food for feeding purposes.

These are questions of great importance to farmers, and are much more easily asked than answered, notwithstanding the satisfactory solution of this problem in agriculture, would undoubtedly be of equal, if not of more importance to the farmer, than that of any other one relating to his profession.

It must be a long time ere this subject will be sufficiently tested to furnish any reliable data that can be depended upon by the farmer, and indeed it is almost certain, that the facts in relation to this matter will never be sufficiently determined to enable any one, at all times, to know which are the best and most profitable kinds of food to feed stock with, at various times and under different circumstances. There seem to be but two ways in which this subject can be decided, (and it may be necessary to use them together;) one is, by an analysis of the various articles used for food, thereby ascertaining the amount of nutriment contained in each kind; the other is, by feeding the different kinds of food to different kinds of stock, under all the various circumstances and situations in which it is found necessary to do it, in raising stock in different parts of the country. The first method has been repeatedly tried by chemists, both in this country and in Europe, and the results of their investigations have been published from time to time, and though differing somewhat in their calculations, yet they agree on the main points, and may be relied on for all practicable purposes in which it is necessary to apply them.

The second method has also been experimented upon to a considerable extent, but with much more variable results, as the nature of the case would imply. There are so many causes which operate on experiments of this kind, that it will necessarily take more time, labor and expense to perfect them, than any one has yet been disposed to give, although many careful experiments have been made, and much valuable information elicited. A knowledge of the composition of different kinds of food, with careful attention in feeding, and close observation of the results which follow, would seem to be the only criterion by which the farmer is to be guided in this department of his business, at least for the present.

The following items in relation to the comparative value of different kinds of food, I have selected from what I have seen published at different times, and which may be of benefit to some of your numerous readers: 100 lbs. of good English hay are equal to 275 lbs. of green Indian corn, 442 do. of rye straw, 264 do oat stray, 253 do. pea straw, 167 do wheat, pea and oat chaff, 178 do. rye and barley chaff, 54 do. rye, 56 do. wheat, 59 do. oats, 46 do. peas and beans, 64 do. buckwheat, 55 do. Indian corn, 68 do. acorns, 105 do. wheat bran, 108 do rye bran, 229 do. mangel wurtzels, 520 do. turnips, 101 do. raw potatoes; 32 lbs of raw potatoes are said to be equal to 14 lbs. of boiled potatoes. The standard by which the value of these articles is determined, is the amount of nutriment contained in each of them. The profit to be derived from feeding them would depend in a measure on the cost of the different articles, and also the different circumstances under which they were used.

One item of considerable importance to the farmer, is often left out in his calculations of profit and loss, and that is, that the *manure* made from animals that are fed on *rich* food, is worth much more than that made by them when they are fed on *poor* food. It is an established agricultural axiom, that the better the food that an animal is fed with, the better the manure from it. I think it is generally conceded by those farmers who have much experience in the matter, that the most profit derived from feeding different kinds of food to stock, is to be obtained by a judicious mixture of the articles, used in the way best calculated to promote the health and thrift of the stock fed.

It must be apparent to every one, that in this, as well as all other branches of the farmer's business, there are many local causes which will affect him one way or the other, and circumstances which he is unable to control, will often operate to counteract and prevent the successful accomplishment of his efforts.

In the preceding table, reference was made to such articles as are used as food for stock; in the following one those articles are considered which are used as food by the people of this country to a considerable extent, and it purports to give nearly the amount of nutritive matter contained in them respectively; 100 lbs. of each article are taken, and after the water contained in them is separated, the number of pounds of nutriment is given: Wheat flour, 90; corn meal, 91; barley meal, 88; rye flour, 79; oat meal, 75; rice, 86; white beans, 95; potatoes, 22; carrots, 10; turnips, 5; beets, 15; cabbages, 8; apples. 16; pears, 16; plums, 29; peaches, 20; grapes, 27; strawberries, 10; melons and cucumbers, about 3. Butchers' meats, (fresh,) taking one kind with another, average about 35 per cent. of real nutritive matter; the loss consists chiefly of their juices and other soluble matter. In cooking meats there is more loss by roasting than by boiling, and a little more loss on salt meat than on fresh; there is not quite so much loss on poultry, as there is on butchers' meats.

Pure milk, as it comes from the cow, contains over 90 per cent. of water; how much it contains as it comes from the *milkman* is problematical, and those who *manufacture* the article can best determine that fact. The flour of spring wheat is said to be more nutritious than that of winter wheat, from the fact of its containing more gluten than winter wheat. It is said that grains grown in cool climates, yield more flour per bushel than those growing in warm countries, and the heavier the grain, the greater the yield of flour.

From the last table given, a person by knowing the prices at which the articles can be obtained, may easily determine what articles of food are the most economical for them to use, which as a matter of course will depend much on the condition in which they are situated; but with a majority of people it will continue to be as it has been—they will consult their *appetites* rather than their *pockets* in the selection of food, without much regard to cost, or in many instances, health either—for appetite is a hard master, imperious in his demands, and comparatively few have the moral courage to deny its gratification, unless compelled by stern poverty, or some other equally insurmountable obstacles. C. T. Alvord. *Wilmington, Vt., May*, 1857.

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Another Acquisition by Mr Thorne.—We take pleasure in correcting an error in our notice last week of Mr. Ambler's sale. The bull "Grand Turk" was there purchased by Henry Strafford, Esq., for Edwin Thorne of New-York, who has presented him to his brother Samuel Thorne of Dutchess Co. Mr. T. is therefore now the owner of this bull, and not the "Illinois Co" as was stated. We understand the animal is expected to arrive shortly.

Bones as a Manure.—Bones are pretty generally known and acknowledged as a powerful fertilizer; but before they become so the phosphates in them must pass from an insoluble to a soluble state. This change is effected naturally in the course of a few years, by agents existing in the soil. The chief of these are probably carbonic acid and other acids, as the humic, almic, &c., which result from the decomposition of vegetable and animal matter.

Inquiries and Answers.

WORKS ON HORTICULTURE.—What is the very best work on Horticulture, where can it be had, and what price prepaid postage, and how should the money be sent so that it may go safe? ISAAC B. RUMFORD. *Oakland, Cal.* [There is no general American work, embracing all branches of the subject. For the pruning and garden management of fruit trees, Barry's Fruit Garden is an admirable work; for raising kitchen garden vegetables, much useful information may be found in Buist's Kitchen Gardener. These are sent by mail by Saxton & Co. of New-York, for $1.25 for the former, and 75 cts. for the latter. Johnson's Dictionary of Gardening, partly adapted to American use, contains many hints in relation to the cultivation of ornamentals, &c., and is sold for about $2. Loudon's Encyclopedia of Gardening is the most complete and comprehensive work on all departments, and costs some ten or twelve dollars; but being entirely English, requires some judgment and experience to adapt it to American practice.

MORE ABOUT RATS.—There is a prescription I have seen tried, and which I have never seen in print. Catch a quantity of rats, say from eight to a dozen, put them in a large kettle, out of which they cannot escape, and keep them there without food. They will presently devour each other, and till there is but one left. That one, of course, is the strongest. Let him out, and go about; he will catch and eat every rat on the place. The best way, however, to destroy rats, is to ferret them out. Ferrets are tame animals, and can be bought in New-York. W. KLASSMANN.

BEDS OF BIRCH SPLINTERS OR SHAVINGS.—Perhaps your subscribers may not generally be aware that they can make good beds out of yellow birch saplings. We have made several during the winter for family use, and find that they answer an excellent purpose. Select those which are free from knots, saw into suitable lengths, and peel as for brooms: the finer the splints the better. It may seem like a tedious process, but a family will make one in two or three evenings. A FRANKLIN SUBSCRIBER.

PATENT OFFICE SEEDS.—I wish to inquire through the Cultivator, whether the Patent Office is bound only to distribute seeds to nurserymen who will cultivate them in a high state, then blow them up and herald their new acquisitions in all the journals, offering to sell at a price they think will bring them a fortune. Then when farmers get them at the seedman's prices, after being forced in hot-beds or in a high state of cultivation, and cultivate them in the ordinary way, they fail entirely. If seeds were sent to farmers they would try them, and if they proved valuable they would be where they would be made useful without this speculation. Farmers are becoming so prejudiced with such impositions, that they will not lay hold of those things that are good. I have frequently written to the Patent Office within the last ten years, but have never received any seeds. J. H.

[There are many who much doubt the propriety and wisdom of the course pursued by the Patent Office, in the purchase and dissemination of seeds; but aside from this fundamental question, so far we have heard, the general aim of the Commissioner has been a good one—to put the seeds where they will be most likely to obtain a careful trial, and where they would in the end probably reach the greatest number of hands. Individuals may have been occasionally slighted, as is not unlikely, either from an ignorance of their capability in the respects named, or from inadvertance. Our correspondent had perhaps better apply through his member of Congress.

ANNUAL FALL OF RAIN.—Is it a fact that as much rain falls in this country as in England, and if so, whence arises the popular opinion to the contrary? X. Y. [Statistics prove that the amount of water which falls as rain, snow, or hail, in some parts of this country very considerably exceeds the average in the British Kingdom, while nowhere does it appear materially less. Observations at fifty different points in this state during a period of ten years, show a mean annual fall of 35.1 inches. Dr. Dalton gives 34 inches as the mean estimate for England and Wales, and Dr. Kane the same for Ireland. But the popular opinion of the superior dryness of our climate is not thereby proved incorrect. We often receive in a few hours as heavy an outpouring from the clouds as in Great Britain would take a fortnight in the coming. Hence it runs off more rapidly, the sun is out a much greater portion of the time, and exercises a proportionately greater drying influence.]

EGG HATCHER.—*Poulterer.* The best we can recommend is the old hen herself. Numerous contrivances have been brought out, and many of them have in turn brought out chickens, but in the present state of our agriculture, we fancy the natural system is in no danger of being generally supplanted by Eccalobions or Incubators of any kind. We have seen it stated that there is an oriental practice of devolving upon children or aged persons, the monotonous duty of hatching eggs, and that they have accomplished it very satisfactorily, and even come to like the task.

SPRING WHEAT.—*R. R.* The most prominent varieties are the Italian, the Tea Wheat (or Siberian Bald,) and the Black Sea. Spring wheat has an advantage over that sown in autumn, in escaping the dangers of the winter, and being much less liable to the attacks of some insect depredators, among which the Hessian fly has been the most annoying; but on the other hand it frequently suffers severely from rust, and although containing much gluten and making excellent bread, is of too yellowish a tint for the manufacture of the best and handsomest flour.

THE SUGAR MAPLE.—*C. T., Monroe.* There are twelve or more species of the maple indigenous to the North American continent. Of these, however, only the *Acer saccharinum*, the common Sugar maple, and the *A. nigrum* or "black Sugar maple," yield a sap sufficiently saccharine for sugar-making purposes. The trees continue to be tapped for a long period without apparently suffering from the process.

BEANS.—*A Subscriber.* These are extensively grown in Great Britain as a field crop; bean-meal, as well as the excellent fodder furnished by the straw, being there considered of great value for live stock. While we have Indian Corn at command, beans will probably never become a popular field crop with us; although there are considerations on which their culture has been strongly recommended.

COCHIN CHINAS TOO FAT.—"Is it a usual thing for Cochin China hens to die of fat? I had one set, and on Monday last she was dead: on opening her, there was oats in the craw, which was lined with fat; a friend lost one the other day in the same way." [The Irish Farmers Gazette states that according to the experience of its editor, Cochin Chinas are difficult to fatten when young, but when full grown frequently die of fat. We are not aware of similar instances in this part of the world.

RING BONE.—I have a handsome yearling colt which has got an enlargement near the pastern, on one of his hind legs. I suppose it is what is generally called a ring-bone. If you or any of your correspondents can inform me how I can effect a permanent cure, by doing so through the columns of the Co. Gent. you will confer a favor on A SUBSCRIBER.

MADDER.—In Co. Gent. of the 21st inst. a young farmer, "J. B.," inquires respecting the culture of Madder, &c. He may find a lengthy article (20 pages)

on the culture of Madder, in the Patent Office Report for 1848, by Count Gasparin, commencing at page 583. Also, in Patent Office Report, 1855, there are something like a dozen pages on madder, by D. J. Browne.
L. B.

Wells and Pumps.—Mr. Editor—I am desirous of knowing the best kind of well, and best style of pump to put in it. Some of my neighbors say the old fashioned stone well, with the old wooden pump, is the best. A new fashioned well is spoken of, a well-hole is sunk, and a box two feet square (without a bottom) is placed at the bottom of the well, connecting with the surface by a pipe for the pump, and then the earth is filled in again. A Subscriber. [The new iron pumps are incomparably better than the wooden ones. We have no knowledge of the new kind of well, but can perceive several strong objections to it, and but little to commend it.

Matthews on the Curculio.—Among your prescriptions for the Curculio nothing is said of Matthews' remedy. What has become of it? S. M. *Kensington, Ct.* [Our correspondent will find all the information that has or can be at present made public, in relation to Matthews' Curculio remedy, and how far it has proved a failure, on p. 142 of the 8th volume of the Country Gentleman. We cannot conceive what object is to be attained now, by continuing to require secrecy, the committee having charge of the experiments having laboriously and faithfully given it a full trial, and truthfully, and with justice to the remedy and to the expecting public, stated its value.

Churning by Water Power.—What kind of churn is best adapted to water power? Will Kendall's answer the purpose, or is the common cylinder preferable? We have used Kendall's by hand for several years, and now propose bringing water to our aid. S. M. J. *Amsterdam.* [We have never churned by water power, but do not see why any rotary churn which operates well by hand, will not succeed as well when driven by water. Kendall's is a good, small, and cheap churn—the thermometer churn is better for a larger dairy.

Late-Grown Fodder.—Which would be the most profitable crop for fodder after some early potatoes that will probably come off about the 10th July—turnips, corn fodder, millet, or 'sugar cane,' on strong warm soil in high tilth? Wm. J. Pettee. *Lakeville, Conn.* [Corn-fodder, sown in drills, *cultivated* two or three times, with seed from some rather early variety, and three bushels per acre, will be best. Sugar cane is not sufficiently tried. Unless there should be a very early autumnal frost, it would mature amply.

Wolf Teeth on Horses.—*D. H. S., Freeport, Ill.*—The remedy referred to on page 348 Co. Gent., is the same that has already appeared in our columns several times, viz., the extraction of the "blind tooth," or teeth, the existence of which is supposed in some way to affect the sight of the animal, and finally destroy it.

Ammoniacal Liquor of Gas Works.—I have used it for scratches on the heels of a horse when other remedies all failed, with entire success. I have also used it on my corn; first soaking the corn, and then putting about two tablespoonfulls of the liquor on, and finally rolling it in plaster, and not a hill of it was pulled by the birds. A Subscriber. *Orange Co.*

Query.—Will you answer through the Cultivator the following questions:—How will sawdust answer as bedding for cattle? Is chestnut sawdust on account of its acid properties better than hemlock? [A communication on this subject will be published next week. We shall be pleased to receive the experience of other correspondents.]

Chester County Hogs.—I want some information about the Chester White, or Chester county hogs; in what do they differ from the Suffolk? Are they larger, and which breed is considered the most profitable? Geo. Folsom. *Zanesfield, O.* [Will some correspondent please furnish the desired information?

Water Apple.—I have received quite a number of letters for the Water Apple grafts. The letters have all been missent and forwarded, and I suppose some will never come to hand. My Post-Office address is Pleasant Valley, Bucks Co., Pa. Charles B. Ott.

Fistula.—Will you or some of your numerous correspondents please inform me of a certain cure for the *Fistula.* I have a fine brood mare badly affected on both shoulders, and am at a loss to know what to do for her. C. C. Moore. *Larissa, Texas.*

Ticks.—Can you inform me through the Cultivator how to prevent ticks from getting on horses and cattle, and injuring them? S. S. C. *Bowling Green, Ky.*

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Extensive Shipment of Valuable Animals.—We learn from a friend in Liverpool, that the ship Georgia, which sailed from that port May 20 for Philadelphia, contained "32 head of Short-Horned cattle, 11 of which were bulls of varying ages and rare beauty of symmetry; 3 very valuable horses; 25 sheep, and 25 pigs." These animals were purchased at an expense, it is said, transportation included, in the neighborhood of $40,000. They are all for the Illinois Cattle Importing Association, and have been selected by its agents, Captain Brown, Dr. Johns, and Mr. Jacoby, from the best sources. The horses are "Young Barnton," a thoroughbred, and "Baylock," a Cleveland bay stallion, and the thoroughbred filly "Catchfly." "Barnton," the sire of the first of these, is mentioned as having been "engaged to serve the royal stud at Windsor, at the large sum of £250 for the present season, and £400 for next season"—an evidence, at least, of the esteem in which his offspring are there held. The bulls, cows, and heifers were many of them selected at the late Dublin show of the Royal Agricultural Society of Ireland, including prize-takers in nearly every class exhibited—as were also some fine pigs. Other purchases were made, of Southdown sheep from the famous flocks of Mr. Jonas Webb; Cotswolds from those of Mr. Lane, Mr. Williams, and Mr Hawer; and cattle and pigs from the stocks of the Rev. Mr Cator, Skelbrook; and of Messrs Combes, Cobden, and Cruickshank, Aberdeen; R. C. Lowndes, Club-moor, and H. Ambler, Halifax. In addition to the above animals, there were at the same time shipped three beautiful little Shetland ponies to R. A. Alexander, Esq., of Kentucky. The whole "between-decks" of the vessel was fitted up in the best style for the security and comfort of the animals, at a cost for freight alone of $4,000.

These animals can but do much for the stock of Illinois, and we congratulate the enterprising farmers of that State on the spirit they have shown, as well as the judgment, if we may believe our reports, manifested by their agents, whose liberality and skill appear to have left a favorable impression behind them. They acknowledge the reception of many kind attentions from all with whom they have had to deal, and of valuable advice and assistance from many, including especially Mr. Strafford of the Herd Book.

Prolific Cow.—*Twenty Calves in six Years.*—On the 26th of last month, Mr. Thomas Morrison, of Lachute, was favored with three calves from one cow, all of which are well and healthy. I saw the three sucking at one time. The cow is now eight years old; when two years old, she had three calves; since then she has had, at two different times, four calves; twice she had three, once two, and once only one; making in all twenty calves in six years. If any of you Montrealers have the spirit of a Barnum, you ought to come up and buy her.—*Montreal Gazette.*

Animals sometimes get too much Salt.

Necessary as salt is to the healthy condition of most animals on a farm, and though there are probably more who give too little than there are who give too much of this article to their stock, yet there are times, and seasons, and conditions of an animal when salt is administered in too large quantities. A brief indication of some of the occasions when animals get more salt than is good for them may be of service to some, who may never have had their attention directed to the mode in which this substance operates.

1. Animals sometimes get too much salt in consequence of having been long deprived of it, and then having access to it in too large quantities. Disease, and even death has resulted from this cause. Cases ot this kind have been put upon record, and may have come in this way or otherwise to the knowledge of the reader. The mode of preventing such mishaps consists in keeping salt, with the addition of leached ashes, a little sulphur, perhaps, within reach of stock at all times, or in feeding it more frequently, or in giving it in small quantities after long abstinence.

2. Another occasion when salt is given in too large or improper doses is when animals are first turned out to grass. As scouring is a natural and common consequence of making this change it only aggravates the matter to give them salt in liberal doses. Dry hay, or bran or meal in a dry state, with *a very small dose of salt*, would be a better corrective; while making such a change slowly and gradually, not suddenly, would be the proper preventive

3. Some give salt to their milch cows when feeding them on turnips, in order to correct the peculiar taste which they are apt to communicate to the milk and butter. Now, if the turnips are given in such quantities as to produce more or less scouring, the administration of salt will only aggravate the evil, and diminish the secretion of milk. Indeed, according to the authority of STEPHENS, in his *Farmer's Guide*, it is the large amount of common salt in turnips, as also in mangel wurtzels, which causes cows fed exclusively upon them to fall off in milk.

4 It is the opinion of some at least, that stock put up to fatten will lay on fat much faster without salt than with it. This fact, if fact it be, is attempted to be accounted for by theorizing in this way. Salt increases the secretion of the bile, and, as bile is composed of fat, oil, gum, and other carbonaceous matters, all of these which are carried off in an excess of bile are just so much taken from the materials from which the fatty parts of the animals are built up. In a word, it is supposed that *the more bile* an animal secretes and passes out of his system, *the less fat* it will produce. When the secretion of bile is so great as to produce scouring, fat will not be produced of course; but if salt comes short of this result, are there facts sufficient to support the above theory?

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Turnip Feeding and Butter Making.

MESSRS. TUCKER & SON.—I see by your last Country Gent., that you received the package of butter, and that it passed the ordeal.

My manner of feeding turnips is this:—When taking them out of the ground I dress them close, cutting off all roots and fibres. It is the tap root and its appendages that impregnate the milk and butter in a great measure. You or any one may tell this by chewing them, and they will leave a pungent taste in the mouth The next operation is—I cut them as long as twenty-four hours before feeding, and throw a handful of salt over them when cut, so that what smell remains passes off in the atmosphere: and last, I never or very seldom feed until after milking.

This is my manner of feeding, and if any of your readers have a better one, I should like to hear from them through the columns of the Co. Gent. or Cultivator.

As you desire to know how my wife makes such butter in winter, I will say that she took no extra pains with that sample.

Her manner is to keep all the vessels clean and sweet, and not to let the cream stand so as to shear it before churning She churns all the milk, and after getting it to a right temperature in one of Chapman's patent churns, she keeps the crank in motion from 15 to 20 minutes, when her butter is ready for taking out. She then washes it in three waters, either hard or soft; works the buttermilk out, and the work is done. J. WALLACE. *Cayuga Co.*

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More about Candle-Making.

MESSRS. EDITORS—I have noticed several communications in the Country Gentleman, recommending the use of alum in the manufacture of candles, to harden the tallow. But after some experience and a number of experiments, I feel confident that there is little more than imagination in its hardening effect. In the first place, alum will not mix or form a combination with tallow or any other grease, and remain so only while the tallow is at a certain degree of heat, and that degree is above a melting heat. The alum cools and precipitates at a temperature that will keep tallow in a fluid state, so the alum will be found granulated and settled at the bottom, pure and unmixed, and as much of it as before its incorporation with it, while the tallow when cool bears no trace of its astringent presence, while it throws off nothing more from the tallow than the natural scum and froth that always rises when subjected to a boiling heat. If it had the effect to separate the oil from the harder parts, it might be of some use, but it does no such thing. Or if you dissolve the alum in water for dipping candles, as is the practice of some, and will take the trouble to evaporate the water after the candles are dipped, you will find all your alum remaining ready for another hardening process.

But suppose, if such a thing could be, that alum and tallow should combine, and though that should only be in a very small degree, and it has all the hardening effect that is claimed for it, and they could be moulded or dipped in that situation, the candles then would be worthless, for alum is not combustible; therefore the candles when lighted would burn only the tallow, and the incombustible alum would be drawn by capillary attraction to the wick, and would form an incrustation upon it, and in a short time the candle would begin to burn dim and more dimly, till it would finally become extinguished by its own incrustation. The absence of this coating on the wick, where alum has been used in the manufacturing, is prima facie evidence that it has formed no combination whatever with the tallow.

In the recipe of Mr. Hard, he says, "for 30 pounds of tallow, take half a pound of alum dissolved in water, pour it into the tallow, let it come to a boil, skim and add two pounds of beeswax." To this he says, "you can add one quarter lard to usually hard tallow" This is a very good way of hardening and increasing the quantity of material used for candles. I have frequently used the same and similar combinations So beeswax and lard, in the proportion of two pounds of wax to six of lard, make a very good article; but it is the wax that hardens, and not the alum, which adds nothing, and is superfluous and unnecessary WM. B. HANFORD. *Walton, N, Y.*

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☞ Mr. JOHN D. PATTERSON, of Chautauque Co., has recently sold two French Merino Rams and two Ewes of the same breed to Mr. SAMUEL BRAMAN of California—price said to be $1,400. Also a Ram to Mr. J. W. Watts of Georgia, for $300.

The Woodburn Sale.

We have received the following detailed report of the Third Annual Sale of Short-Horned Cattle, the property of R. AITCHESON ALEXANDER, Esq., of Woodburn Farm, near Midway, Woodford Co., Ky., June 3d, 1857.

BULLS LET.

1.	Morris Thomas, Shelby Co., Ky., Lord John,	$515
2.	J. R. Bryant, Pleasant Hill, Ky., Baron Martin,	315
		$830

BULLS SOLD.

2.	H. Renick, Circleville. Ohio. Roland,	$510
3.	A. Lawell, Missouri, Chester,	400
4.	A. R. Humphries, Union, Va.. Oliver.	725
5.	Benj. Montgomery, Washington Co., Ky., Jason,	200
6.	John James, Lexington, Ky., Benton,	200
7.	J. R, Bryant, Pleasant Hill. Ky., Lawrence,	685
8.	John R. Viley, Lexington, Ky.. The Priest,	690
9.	Geo. Smith and E. & W. Jesse, Clay Village, Ky., Julian.	300
10.	Chas. Buford, Rock Island. Ill., Wilton.	240
11.	H. B. Williams, Memphis, Tenn., Norman,	700
12	R. M. Johnson, Scott Co., Ky.. Manley,	235
13.	W. L. Waddy. Clay Village. Ky., Anson,	320
14.	A. B. Brown. Lexington. Ky.. Baronet,	200
15.	W. R. Duncan Winchester. Ky.. Princeton,	510
16.	J. A. Beaseley. Lancaster. Ky. Breckon,	150
17.	Stephen H. Miles, Shelbyville, Ky.. Milton,	505
18.	M. R. Cockerill, Nashville. Tenn., Darley,	630
19.	Joseph Chinault, White Hall, Ky., Chorister,	175
20.	Joseph Scott, North Middletown, Ky., Orlando,	290
21.	John Garrett, Versailles, Ky.. Jasper,	325
22.	Isaac Shelby, Lexington, Ky., Wilson,	315
23.	Dr. E. Warfield, Lexington, Ky., Croton,	210
24.	P. S. Dudley, Flemingsburg. Ky., Warlock,	155
25.	George Haydon, Muhlenburg. Ky., Apathy,	175
26.	A. B. Barrett, Henderson Co., Ky., Fisherman,	130
27.	C. G. McHadden, St. Louis, Mo. Logic,	200
28.	T. H. Jackson, Henry Co.. Ky.. The Doctor,	160
29.	Wm. Chinault, Madison Co., Ky. Wayward,	235
30	Jos. Miller, Sumner Co., Ky., Doubloon,	105
31.	Jos. Miller, " " Figaro.	105
		$9,780

COWS AND HEIFERS SOLD.

1.	Warren Viley, Woodford Co., Ky., Woodburn Beauty,	$230
2.	John Cunningham, Paris, Ky., Fly,	195
3.	H. B. Franklin, Fayette Co., Ky., Miss Waller,	105
4.	H. B. Franklin, " " Julia,	95
5.	Henry Porter, Clarksville, Mo., Nell,	180
6.	Henry Hibler, Paris, Ky., Mary Ann 9th,	145
7.	Geo. Smith. Shelby Co., Ky., Lady Jane,	140
8.	P. H. Thompson, Fayette Co., Ky., Woodburn Beauty 2d,	350
9.	John Cunningham, Paris, Ky.. Lady Jane 2d,	160
10.	Gen. S. DeSha, Harrison Co. Ky., Verity.	230
11.	P. H. Thompson. Fayette Co., Ky., Julia 2d.	180
12.	(Withdrawn. not having bred, Lady Jane 3d.)	
13.	Wilson Lee, Danville, Ky., Orba 3d,	145
14.	P. H. Thompson, Fayette Co., Ky., Nell 2d.	220
15.	J. M. Hackweth, Shelby Co., Ky.. Cherry 2d,	175
16.	(Withdrawn, not having bred, Miss Waller 3d.)	
17.	D. W. Jones, Boyle Co., Ky., Novelty,	185
18.	W. A. Cook, Mercer Co., Ky., Miss Waller 4th,	200
19.	Nelson Lee. Danville, Ky., Rose 3d,	250
20.	Joseph Miller, New-Haven, Ky., Woodburn Beauty 3d,	165
21.	Joseph Scott, Bourbon Co., Ky.. Ellen Catley,	205
22.	R. Heddleston, Flemingsburg, Ky.. Maid Marion,	315
23.	H. Hibler, Paris, Ky., Maiden,	270
24.	Saml. Salyers, Fayette Co., Ky., Maid Marion 4th,	300
25.	R. Heddleston. Flemingsburg. Ky., Flora 4th,	300
26.	A. B. Barrett, Henderson. Ky,, Miriam,	200
27.	John Cunningham, Paris, Ky., Nell 3d.	160
28.	Thomas Brown. Washington Co., Ky., Mora,	150
29.	Nelson Lee, Boyle Co., Ky., Tulip,	490
30.	F. J. Gray, Cynthia, Ky., Ellen,	150
31.	John Haskins, Garrard Co., Ky., Mabel,	100
32.	H. B. Franklin, Fayette Co., Ky., Lupin,	400
33.	(Withdrawn, being sick, Midge.)	
		$6,490

SHEEP SOLD.

1.	S. H. Jackson,	Southdown buck,	$135
2.	J. B. Kennidy,	Cotswold buck,	50
3.	F. J. Gray,	do.	41
			$226
1.	James Foley,	Cotswold ewe,	$21
2.	T. H. Jackson,	do.	21
3.	F. J. Gray,	do.	23
4.	do.	do.	28
			$103

PIGS SOLD.

1.	A. B. Barrett,	pair pigs,	$15
2.	Logan Railey,	do.	20
3.	H. Rowland,	do.	20
4.	A. B. Barrett,	do.	15
			$70

RECAPITULATION.

30 bulls,	$9,780	Average pr. head,		$326 10
30 cows and heifers,	6,490	do.	do.,	216 33
60 head of cattle,	$16,270	do.	do.,	271 16⅓
3 bucks,	226	do.	do.,	75 33
4 Cotswold ewes,	103	do.	do.,	25 75
8 pigs,	70	do.	do.,	8 75
Amount sales,	$16 669			
2 Bulls let for 1 year,	830	do.	do.,	415 00
Amt. sales & lettings,	$17,499			

In addition to the bulls here let, Mr. Alexander, this Spring, let to Messrs. G. Bedford and Major Duncan, of Bourbon, the young bull, Duke of Airdrie, for $1,250. Respectfully yours, &c., S. W. JOHNSON, *Agent for R. Aitcheson Alexander.*

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LIGHTNING RODS.—Wishing to erect a lightning rod as cheap as possible, and a protection to my buildings, and finding that the kind of rod used, and the manner of putting it up in this section is condemned by some as worthless, advice from you and any others who will give it in the Cultivator, will be thankfully received. What is the cheapest metal that may be used and be safe? how large should the rod be for forty feet in length, and how should it be fastened to the building? Will the short turns (which must necessarily be in it if it is erected upon the chimney and down the roof) affect its conducting power? A rod of a given height from the building will protect what area? An answer to the foregoing questions, and any other suggestions, will very much oblige one subscriber, and I doubt not, hundreds. WM. E. HUNTLEY. *Westford, Vt.* [A very full article on this subject will be found in the REGISTER OF RURAL AFFAIRS for 1855. We think no further information than there published will be desired by our correspondent.]

WORKS ON FRUIT CULTURE.—I would be pleased to know where there can be purchased a small Horticultural Dictionary containing a full description of the pear, apple, cherry, and other fruit trees, time of ripening, &c. I also would like to know which is the proper time to bud young apple trees, whilst they are yet in the bed or after they are set in the nursery. JOHN T. SERGEANT *Sergeantsville.* [For pruning and management of the Dwarf pear and other fruits, the best work is *Barry's Fruit Garden.* For a description of the varieties, the necessary information will be found in the American Fruit Culturist, last or eleventh edition. Apple trees are budded soon after midsummer, and after the young seedlings are removed from the seed bed to the nursery row, and have begun to grow vigorously.

☞ The N. E. Farmer describes a new plow brought out by an enterprising firm in Boston, with 12 different forms and sizes of mould board, all fitting a common standard or framework—thus adapting a single implement to all the purposes of the farm. It is called the "Universal Plow."

☞ In England the short supplies of guano are beginning to excite some anxiety; it appears that during the first quarter of 1855, 35,570 tons were imported; in 1856 the supply amounted to 62,265 tons; while this year the amount has dwindled down to 9,241 tons.

Notes for the Month.

The Season and the Crops.—*Rock Island, Ill., June* 2, 1857.—When I left Albany on the 21st of May, I anticipated finding warmer weather and a more forward spring as I proceeded westward. But such was not the case. At Cleveland I found the season even more backward than at Albany. At Chicago the vegetation was considered at least three weeks later than usual, and so it is wherever I have been. This extension of the winter, which was a very severe one, into the lap of spring, has proved as injurious in northern Illinois and the portion of Wisconsin through which I travelled, as in western New-York. Many cattle I am told, have died from actual starvation. Thirty dollars per ton is the lowest price I have heard for hay, and in some places it is $40 per ton, and difficult to be procured even at this price. This was a state of things I had not anticipated, in a land where all the hay wanted could be had for the cutting. The excuse for it is found, not in the want of forethought on the part of the farmers, but in the length and severity of the winter.

I have not as yet seen a field of winter wheat. It is said to have been winter-killed throughout northern Illinois, to such an extent that it has nearly all been plowed up, and the land re-seeded with spring wheat, which was got in in good season, and looks well; but I hear that much of the corn planted, has rotted in the ground. I saw a farmer yesterday who resides about twenty miles from this place, who informed me he had just commenced re-planting eighty acres of corn, the first planting having rotted in the ground. He attributes its failure to the cold wet weather, the seed having been carefully selected and preserved. Upon the whole, the prospect for any great reduction in the price of agricultural products, from an over-abundant harvest this season, seems by no means flattering. L. T.

Third Vol. of the Am. S. H. Herd Book.—We have received a copy of this portly volume from Lewis F. Allen, Esq., its editor. It is now ready for delivery to subscribers, and will be sent to them in the order in which their remittances are received. The price is $5, and postage, when it goes by mail, 50 cts. additional. Those not subscribers can obtain the work at above rates by addressing Mr. A. at Black Rock. We have a few sets for sale at this office—prices as follows: 1st vol. $3, 2d vol. $5, 3d vol. $5, to which $1 25 must be added for postage on the three, when they go by mail—although it would be cheaper in most cases to receive them by Express. The preceding vols. may also be obtained as above, direct from Mr. Allen.

The present volume shows the progress of the Short-Horns in public estimation, and the increased attention now given to improved stock. Breeders and owners are represented in it from 27 of the States and the two Canadas. It carries the number of the bulls from 1170 to 2468, contains over 700 pages, and upwards of 100 portraits of living animals, aside from several other plates. Only a thousand copies are printed,—a small number in proportion to the breeders represented. All in any way concerned in this kind of stock would find it to their own interest to extend every encouragement to the Herd Book. No breeder should be without a complete set.

The Cattle Murrain in Europe.—Prof. Simonds, who is travelling on the continent to investigate this subject, writes to the Secretary of the Royal Ag. Society from Cracow, that the severe measures which Prussia has adopted have kept back the malady, *rinderpest*, from entering her kingdom, except a short distance from her frontiers on Austria and Russia; and the places where it had broken out were then (Ap. 30) entirely free from the infection. Still the military cordon was not raised, although it probably would be in course of a few weeks. Prof. S. was going into Galacia, where he expected to meet with the disease. The governments of Holstein, Lubeck, and Mecklenburgh, as our readers are aware, some time ago adopted very stringent measures, not only requiring infected cattle to be killed on the first appearance of the pleuro-pneumonia, but also all healthy ones which had in any way come in contact with the malady. No great fears were entertained of its reaching England.

Trial of Reapers, Mowers, &c., at Syracuse.—We learn from Mr. Wilder that "a large number of machines have been entered for trial" at the U. S. Ag. Society's proposed meeting for this purpose, at Syracuse in July [precise date and board of Judges not yet announced]. We have received the circular, containing rules and regulations, &c., which may be obtained we presume by addressing the Secretary, B. P. Poore, Newburyport, Mass. The premium list includes three prizes (1, Gold Medal and Dip., 2, Silver Medal, 3, Bronze Medal) respectively, on Reapers, Mowers, and Reapers & Mowers combined; Silver and Bronze medals, for the 1st and 2d best transferable Automaton Rake; ditto on Hay Rakes; ditto on Teeding Machines; ditto on Hay Pitching Machines; Silver Medal for the best Clover and Grass Seed Harvester, the same for best Hay or Cotton Press; and bronze medals for small Tools, including Grain Cradles, Hand Rakes, Hay Forks, Scythes, Cradles and Snaths—in all ten classes—besides which some discretionary power of awards to meritorious articles is placed in the hands of the Judges.

At a meeting of the "Executive Committee of the U. S Ag. Society" in this city last week, the following Board of Judges was chosen for the trial at Syracuse:

J. Stanton Gould, New-York. Chairman; Seth Scammon. Maine; Brooks Shattuck, N. Hampshire; Edwin Hammond, Vt.; Sanford Howard, Massachusetts; Stephen H. Smith, Rhode Island; T. S. Gold, Connecticut; B. B. Kirtland, New-York; Geo. Hartshorne, New Jersey; Jno. Jones, Delaware; Francis P. Blair, Indiana; Fred'k Watts and J. L. Darlington, Pa.; Gen. J. T. Worthington and Wm. A. Gill, Ohio; Joseph A. Moore and W. L. Underwood, Kentucky; Joseph A. Wright, Indiana; Horace Capron, Illinois; J. C. Holmes, Michigan; Wm. C. Rives, Virginia; H. K. Burgwyn, North Carolina; A. G. Summer, South Carolina; Richard Peters, Georgia; Lewis Worcester, Wisconsin; Wm. Duane, Iowa. Joseph E. Holmes, General Superintendent and member *ex officio*.

A resolution was adopted inviting the co-operation of the N. Y. State Ag. Society.

The Show at Penn Yan—Crops, &c.—I am just returned from attending the show of the Wool Grower's Association at Penn Yan. There was a very fine display of fine wooled sheep, although comprising a much smaller number than last year; there were a few of the long wooled breed. Mr. Miller from Markham, Canada West, had 3 yearling bucks and 5 do ewes that were very fine; otherwise the long wools were few in number and the quality nothing to boast of. This kind of sheep don't seem to take very well in Western N. Y.—and I don't know but the best Merinos answer better for this country; the long wools require a turnip growing country, which this never can be, for both summer and winter are against it. Cold turnips fed to either cattle or sheep here with the thermometer over or near zero would be a cold morsel, besides the expense of storing and risk of keeping would never pay. Could our corn that is consumed for drink and all the oil cake made in the country, be fed to our stock, then we might look for a much better state of farming. The wheat on all cold soils looks miserable in the extreme; if other States don't furnish great crops we will have to apply to Europe for wheat before harvest, 1858. John Johnston.

A New Feature.—It appears that at the late International show at Poissy, which we noticed some weeks ago, the examination of the animals was post-mortuary and internal, as well as of their exterior appearances in the flush of life. In other words the jurors, to quote a common expression, "sat upon" no less than thirteen specimens of roast beef, rendering the following verdict, which is nearly in accordance with the previous opinions of connoisseurs:—First and Best, a *West Highland* ox; second, a *Devon*; third, a *Charolaise* (a French breed); fourth, a cross between the *Angus* and *Short-Horn*; fifth, an *Angus*; sixth, a *Limousin* (another French breed); seventh, a Short-Horn; eighth, a Parthenaise (French). The others were not classed. For *soup* and *boiled* beef, the Short-Horn ox, which only stood seventh in quality as roast beef, was placed first.

The Greatest Yield of Sugar upon Record.—Messrs Editors—There is a maple tree standing near the west bank of the Connecticut, in the open field upon a slate stone soil, on the farm of Mr. Olney Bates, from which he has made this season 75 lbs. of sugar. It was tapped with twelve spouts, leading into six buckets, the greatest run being 10 pailfulls in 24 hours. The tree, though not tall, has a large, heavy, spreading top with numerous branches, and measures 14 feet in circumference near the ground. This tree has been tapped for many years past; last year 47½ lbs. were made from it. There is probably not another tree on this continent from which so much sweet has been extracted. I notice in the Tribune of May 30th, that this tree is located in Springfield, Mass. This is a mistake; it is Springfield, Vermont. J. W. C.

A Treatise on the Artificial Propagation of certain kinds of Fish, with the Description and Habits of such Kinds as are the most Suitable for Pisciculture, By Theodatus Garlick, M. D. Cleveland: Tho. Brown.

The volume before us includes a paper read at a meeting of the Cleveland Academy of Natural Science, of which the author is Vice-President, containing his first experiments, and the further articles from his pen that have from time to time appeared in the *Ohio Farmer*, with translations of the Reports made by Messrs Milne-Edwards and Costa, to the French government. Dr. Garlick has been carrying on experiments for several years, and he represents their results as satisfactory in the highest degree. The subject is one in which a great interest is now taken, and all who wish to make a practical trial should avail themselves of the experience here put within their reach. Address Thomas Brown, Cleveland, O. We shall endeavor to recur again to this work at an early opportunity.

Another "Large Colt."—I saw in your valuable paper of May 7th an article headed "More Large Colts,"—which induces me to make a statement of a colt I have, foaled May 3d, 1856. He is therefore near one year and almost one month old, and stands fifteen hands and one inch high, and girths sixty-six and one-half inches. This colt was weaned at three months old and has had nothing but hay and grass since, and would, if in condition, weigh at least nine hundred pounds. He is thinnish in flesh on account of having the distemper. He is a mahogany bay, black mane, tail, and legs, and was sired by the thorough-bred English horse, "Alexander," now owned by More & Judson, Delaware Co., Ohio, formerly owned by E. H. Ireland, Esq, of your place.

I should be very happy to meet these gentlemen with their colts and compare their merits, was I within three hundred miles of Albany or New-York Cities. Wm. Dildine. *Delaware Co, O.*

Another Use for the Sunflower.—A correspondent, who noticed a recent paragraph in our columns, in which it was stated that *corn* had been used for fuel the past winter in Illinois, for lack of anything better or cheaper, writes us to suggest the availability of the sun-flower for a similar purpose. He has resided for six years in the State mentioned, and has "seen the *Sun-flower* grow there with a stalk as large as a man's wrist." He states that it "makes a *good, light* fuel, while one bushel of seed will give about three quarts of oil, which repays the cultivation. The oil cake is remarkable for its fattening qualities, and will sell where it has been tried as well as any oil cake whatever."

Remedy for the "Striped Bug."—William Saunders, a skillful gardener, states in the *Horticulturist*, that the striped bug may be successfully repelled, by simply placing a *pane of glass* over each hill, supported at the corners on four small wooden pegs. He does not say how near the surface the glass should rest, but we suppose within an inch or two. He states that this has been found as effectual as the wooden box, while it freely admits air as well as light. It is of very easy trial.

☞ At the conclusion of their recent exhibition, the "Wool-Growers' Association of Western New-York" elected the following officers for the ensuing year:—

President—Hon. A. B. Dickinson, Steuben county.

Vice Presidents—Silas Hillman, of Livingston Co.; W. Stewart Judd, Yates; H. A. Pendergast, Chautauque; A. Y. Baker, Steuben; Elisha M. Bradley, Ontario; Chas. H. Walker, Wyoming; D. D. T. Moore, Monroe; Charles Morrell, Tompkins; William Wilson, Allegany; E. E. Brown, Cayuga; L. F. Allen, Erie; Chester Hannun, Genesee; Hiram McCollum, Niagara; Walter A. Newhead, Wayne; Reed Burritt, Schuyler; John Johnston, Seneca.

Corresponding Secretaries—C. D. Champlin, Steuben; Wm. D. Dickinson, E. F. Leach, Thos. R. Peck, Ontario; Wm. D. Purring, Wayne; G. Granger, Ontario.

Recording Secretary—H. T. Brooks, Pearl Creek, Wyoming Co.

Treasurer—William T. Remer, Yates Co.

☞ We learn that Mr. Thorne has recently sold to Mr. David Leavitt, Jr, Great Barrington, Mass., the bull calf "Azim," sired by "Neptune," and from "Lalla Rookh;" the heifer calves, "Louise," by "Duke of Gloster," and from imported cow "Apricot," and "Bena," sired in England by "Duke of Cambridge"—dam, "Blouzelind;" the yearling heifer "Azalia," by "Young Balco"—dam, imported "Agnes," and the imported cow "Darling," by "Grand Duke," and heavy in calf by "2nd Grand Duke." "Azalia" was one of the herd that won the 1st prize, as the best herd of any breed, at the U. S. Show last fall, and was also the winner of the first prize as the best heifer calf at the American Institute last fall. They were all first class animals, and will undoubtedly do much to improve the stock of Massachusetts. He also purchased a ram and three ewes (South-Downs)

☞ We see it stated that a new agricultural association, of which Silas M. Burroughs is President, Charles Morrell, Secretary and General Superintendent, and John Arnot, Jr., Treasurer, has been formed in this State under the title of the "Young Men's National Agricultural and Mechanics' Society." It is to hold its first Annual Fair at Elmira, commencing on September 1, and is said to offer premiums to to the amount of $13,000. Its main object seems to be the encouragement of fire engines and fast horses, as $3,000 of the above amount are offered on the former, while the show of the latter is promised to include "Flora Temple, Lancet, Brown Dick, Rossiter, the Tid Hinman mare, and others."

☞ H. C S., Madison, Ind, sends us an article on the "Hog Cholera," which appeared in the Paris (Ky.) *Citizen*, from the pen of Dr. Dougherty. On careful examination of subjects of this disease, Dr. D. had found "that portion of the small bowel next the stomach, *literally filled* with worms to the extent of several feet, and in a high state of inflammation." He consequently considers this malady an inflammation resulting from the presence of the worm, and thinks it incommunicable from one animal to another. The treatment he would recommend is entirely of a preventive kind, as he does not believe the worms can be dislodged after once obtaining a hold.

FINE STRAWBERRIES.—The best specimens of fruit, the largest, and most highly colored and flavored, are always from those beds where the plants are kept thinned out to rows or "hills." If runners cover the whole surface, the fruit is smaller, more shaded, and the flavor is not in the highest degree of perfection. But the cultivated bed has one drawback,—the rain dashes the soil upon the fruit. This evil may be easily remedied by placing the short grass, which at this time is obtained by mowing lawns, between the rows. Tan has been recommended, and it does tolerably well, but is itself not so clean as is desirable. Straw, chopped short, is used by some, and is cleaner and better than tan. But the soft, clean, fresh grass, only an inch or two in length, obtained from lawns, is much preferred to either, and it is easily and frequently renewed. The moisture which it assists in retaining in the soil, promotes the larger growth of the fruit. If irrigation is applied, this covering retains the moisture in the surface soil, and prevents evaporation and crusting. We have known the fruit while ripening, to be be doubled in size in 24 hours, by a plentiful supply of water, dropping on the plants, and the mulching given them is next best to constant watering.

☞ H. A. TERRY of Council Bluffs, sends us a paper of water-melon seeds, of a kind which he originated and calls the "White Spanish." He says: "It grows rather large; oval; color white or yellowish white; flesh bright scarlet, and is one of the richest flavored melons that I am acquainted with." Also two papers of the "Fig Tomato" seed, of which he adds: "This variety is not the same as the Grape Tomato, or the Strawberry Tomato, as some of your correspondents think. The fruit is much larger than either of the others, and is dark purple when ripe. It is encased in a husk the same as the Strawberry Tomato, but often grows so large as to burst the husk entirely off. It has more the flavor of apples than of any other fruit when cooked. It is very productive and is really valuable in the west, where fruit is as yet scarce. It will succeed on any good soil, and should be cultivated the same as the common tomato.

☞ Tuesday, May 19, a sale of Short-Horns belonging to Mr. E Bate, of Kelsterten, North Wales, took place under direction of Mr. Strafford. We have received no account containing names of purchasers, but it is said that "the attendance was very numerous, including short-horn breeders from all parts of the United Kingdom, as well as Australia and the United States. Twenty-one Cows sold for £837 18*s*, average £39 18*s*.; 15 Heifers and Yearlings for £684 12*s*, average £45 13*s*.; and 15 Bulls and Yearlings for £684 12*s*., averaging £45 13*s*, or the total, 51 head, reached an average of about $216 each.

A QUEER 'TRIAL OF SPEED.'—A bet was recently made in France between two farmers about the speed of horses and oxen, with the same load and same distance; the distance travelled was 23 kilometers (about 12 miles,) a four-horse team was put into a wagon loaded with 10,000 lbs. of beet-root pulp. The oxen were two yoke with the same load. The horses beat them only seven minutes, and would themselves have been beaten had they not been the best in the country. Time; 3h. 6m.; 3h. 13m.

TOBACCO.—On account of the improving of the prices the people here begin to take a more conspicuous interest in the culture of tobacco. Therefore I ask leave to defer to your consideration how far it may be convenient to publish occasionally any desirable information on the cultivation of that crop; especially referring to the management of the soil and of the plants; also of the best way eastern farmers can find to meet with a ready market and dispose of their crop. C. S. *Hartford, Conn.*

SWEET POTATO PLANTS.—We have received from C. B. MURRAY, of *Twenty Mile Stand, Ohio*, a box containing 300 of these plants of the "best northern variety"—proving, 1, that it is not yet to late for others to procure them, and, 2., that they will be forwarded in good shape to any order. We are much obliged to Mr. M. for the opportunity of trying his vines.

THE TRANSACTIONS OF THE CONN. STATE AG. SOCIETY for 1856 have been sent us, in a neat and substantial volume, by the Secretary, HENRY A. DYER. It contains the usual Reports of Officers and Meetings, and of the different committees at the last Fair; the Addresses by Judge Butler and Prof Johnson; notices of, and several addresses delivered before County Societies, and in conclusion, a number of interesting papers by Messrs. Gold, Camp, Kellogg, Comstock and Dyer.

A TRIAL SUGGESTED.—I notice in the Co. Gent. of this week, Mr. Jas. McMillan says he has seen no data from which Prof. Voeckler, and I, form our opinion that manure loses nothing by being spread on the surface for six months before being plowed under. I form my opinion from an experience of so applying it for nearly if not quite twenty years; and I have no doubt if Mr. McMillan would give it a trial, he would find I am right. JOHN JOHNSTON.

"CHESS IN WHEAT."—*Enquirer.*—This subject has been so frequently and thoroughly canvassed in our columns, that we do not feel like joining in your invitation for a general discussion of it. You say that the communication published from the Sandwich Islands, apparently "leans to the idea that chess is not indigenous to any wheat field—that is to say, that wheat will not turn to chess." . . . We think it *does*, most decidedly, and, moreover, that it furnishes ample corroboration of this most unquestionable of all *facts*—which, to use your own words, "are stubborn things." When a question is brought forward, on one side of which are arrayed all those "facts," which give us evidences of *species*, either in animals or plants—the eternal verity that "every seed bringeth forth after its kind,"—and on the other side some stray stories of strange transmutations in a particular grain, we should neglect all laws of evidence and all common sense, if in attempting to decide, we failed to scrutinize most deeply even the fairest tales conflicting with rules otherwise inviolable. And, as regards wheat and chess, if, after such a scrutiny, no case can be *substantiated* in which the process of transmutation has been seen, either going on or completed,—and premiums have been offered for specimens of the kind, one of $50 or $100 being now open, we believe, to competition—our doubt as to the *occurrence* of the process becomes a certainty of its *impossibility*. Then, in conclusion, we have the testimony of such additional "facts" as these: That farmers who have year after year planted nothing but *clean* seed, have at length entirely eradicated chess from their wheat fields, and that the evidence of our Sandwich Island correspondent proves the wheat never did "turn to chess" there, until the seeds of the weed were introduced from abroad. . . . We refer you to our back volumes for a fuller explanation than we can now give, of the manner in which so many have been deceived into a belief of the change. Suffice it to say, that when the wheat has a favorable start, it generally kills out the chess that may spring from a mixture of its seed and the wheat sown; but on the "low spots of ground" of which you speak, the reverse is the case—the wheat, as you remark, has there "suffered most by wet and frost," and leaves an open way for the germination and growth of the chess seeds. Then the wiry stalk on which the chess head is borne, winds itself into the head of wheat, and as the latter grows up, is disconnected from its parent plant, and we have a perfect case of "transmutation," a chess head on a wheat stalk! but only requiring about one minute and two fingers to unravel it completely. Will our correspondent investigate the matter carefully for himself, and send us his conclusions?

Ashes and Plaster.—I have some plaster and wood ashes, and two lots of land, one wet and the other dry—will you inform me through the Cultivator which to apply to the dry land and which to the wet. G. A. Benton. [Plaster is rarely of any use on wet land, and we should only apply it to the dry. Its benefit can only be determined by trial—sometimes it produces no sensible effect Nearly the same rule will apply to ashes, although in some instances it has produced a good effect on moist land—there is more chance for its succeeding on the moist land than the plaster. But as a general rule, manure of no kind can be relied on when applied to wet soils, and draining must be looked to as the first thing.

Patent Office Seeds—In your paper of May 28, I see that J. H. complains of neglect in not getting attention to his applications for seeds, &c., at the Patent Office. Perhaps J. H. is not aware that the business there is done on a wholesale scale. The retail part is the business of Members of Congress and officers of State, County, and Town Agricultural Societies. Such I have been credibly informed is the Commissioner's plan, and I can assure J. H. that in our region we find it works well. Now if J. H. is so situated as not to have the benefits of a Town Agricultural Society, I would recommend him to exert himself the coming season and start one. Then, through the officers of such society apply in due form for seeds, &c., and there will be no reason afterwards of neglect. W. M. B.

Inquiry.—An intelligent young farmer wishes to know the results of *experience* in the use of the *water-ram*, and is desirous that such of our correspondents as have *tried it* for several months, a year, or more, should state if any serious difficulties have occurred, and what they are. What is the smallest amount of water, in quarts or gallons, per minute, that has been successfully employed in continued practice, for driving a ram? Will some correspondent give his experience?

Mill and Press for Sugar Cane.—A correspondent at Binghampton has kindly forwarded a series of drawings of a mill, press, and evaporating pan, for the manufacture of molasses or sugar from the Chinese sugar cane; but as we do not learn that they have been fully tried, we propose to suspend their insertion until experience has proved their value. In the mean time, we shall be glad to learn the results of experiments made with them.

☞ "The Fourth Annual Report of the Secretary of the Massachusetts Board of Agriculture, together with the reports of committees appointed to visit county societies, with an appendix containing an abstract of the Finances of the County Societies," has been sent us by C. L. Flint, Esq., the courteous editor. We have already noticed his report (on grasses,) which forms the portion of the present volume of most general and lasting interest.

☞ We notice the names of Albert Allen, Esq., Rev. R. J. Breckinridge, D. D,. and R. J. Spurr, all of Fayette Co., A. Peter of Jefferson Co., and D. D. Owen of New-Harmony, Ind., as successful competitors for the prizes on Essays offered by the Kentucky State Ag. Society.

☞ At a sale of Short-Horns, near Dumfries, May 8, the entire sum realised was £2001 for 77 animals. The lowest sum brought was £19, 15s, and two splendid bullocks brought £33 each, the largest sums obtained. The average was £25, 19s. 8¾d.

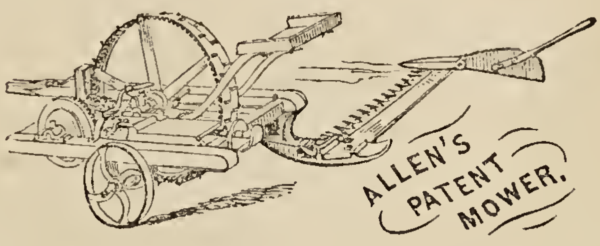
☞ The Dearborn Co., (Ind.) Ag. Society will hold their Fair this year at Aurora, Sept. 29, and the three following days.

Dunham & Wood.

Etna, Tompkins Co, N. Y, Breeders of

PURE SHORT-HORNS, having choice Herd-Book pedigrees,
PURE LEICESTER SWINE, finely framed, and quickly-fattened, large hogs,
PURE BERKSHIRE SWINE, fine boned, early maturing, medium-sized hogs,
PURE DOMESTIC FOWLS, of choice varieties,
PURE WILD TURKEYS, domesticated; valuable farm and splendid park ornaments.

Choice single animals, or paired suitable to breed together, supplied upon short notice at reasonable rates.
July 1—m1t*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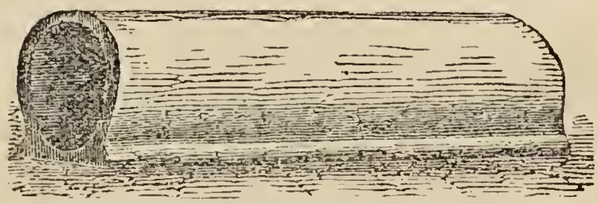
The Best Mowing Machine in the World.

ALLEN'S
PATENT IMPROVED,
MOWING MACHINE.
AND COMBINED MOWER AND REAPER;

STRONG, simple in construction, not liable to get out of order, compact, light, easy of draft, perfectly safe to the driver, and may be worked at a slow gait by Horses or Oxen. No clogging of knives; works well on rough ground, also on side-hills, salt and fresh meadows, and in any kind of lodged grass and clover.

Warranted to Give Entire Satisfaction.

Manufactured at the Agricultural Implement Manufactory, and for sale at the Warehouse and Seedstore of
R. L. ALLEN, 189 & 191 Water Street,
April 30—w9tm2t. New-York.



Appleton's Drain Tile Works,

Corner of Lydius and Snipe streets, Albany, near Mr. Wilson's Nursery.

HORSE SHOE TILE 14 INCHES LONG.

Prices—4½ inches calibre, $18 per 1000 pieces—3½ inch. $15 per 1000—2½ inches, $12 per 1000.

SOLE TILE 14 INCHES LONG.

4 inches calibre. $40 per 1000—3 inches, $18 per 1000—2 inches, $12 per 1000.

THE subscriber having enlarged his works, is now prepared to furnish Drain Tile of the various patterns and prices. Also large Tile for small streams and drains about dwellings, &c., at $4, $6, and $8 per 100 pieces. He warrants his Tile to be perfectly sound, and to fit good at the joints, so as to admit water and keep out the dirt. The Tile have a larger calibre than any other of American manufacture for the same prices; they are also more than 14 inches in length—1000 pieces will lay 72 rods.

Tile delivered at the docks and railroads free of cartage. Specimens can be seen at L. & M. Merchants', 71 Quay-st., Albany, near the Steamboat Landing.

Full directions for laying Tile will be sent free to those addressing the subscriber.

He would only add that Tile from his establishment obtained the first prizes at the Albany county and N. Y. State Fairs. Practical drainers furnished if required.

Orders from all parts will be thankfully received and promptly attended to. Address JOHN APPLETON,
195 Washington-st., Albany, N. Y.
March 26—weow8tm3m.

Choice Farm Lands for Sale.

THE ILLINOIS CENTRAL R. R. COMPANY,

IS NOW PREPARED TO SELL ABOUT

1,500,000 ACRES

OF CHOICE FARMING LANDS,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE Lands were granted by the Government to aid in the construction of this Road, and are among the richest and most fertile in the world. They extend from north-east and north-west, through the middle of the State, to the extreme south, and include every variety of climate and productions found between those parallels of latitude. The northern portion is chiefly prairie, interspersed with fine groves, and in the middle and southern sections timber predominates, alternating with beautiful prairies and openings.

The climate is more healthy, mild and equable, than any other part of the country—the air is pure and bracing, while living streams and springs of excellent water abound.

Bituminous Coal is extensively mined, and supplies a cheap and desirable fuel, being furnished at many points at $2 to $4 per ton—and wood can be had at the same rate per cord.

Building Stone of excellent quality also abounds, which can be procured for little more than the expense of transportation.

The great fertility of these lands, which are a black rich mould from two to five feet deep, and gently rolling,—their contiguity to this Road, by which every facility is furnished for travel and transportation, to the principal markets North, South, East, West, and the economy with which they can be cultivated, render them the most valuable investment that can be found; and present the most favorable opportunity for persons of industrious habits and small means to acquire a comfortable independence in a few years.

Chicago is now the greatest grain market in the world —and the facility and economy with which the products of these lands can be transported to that market, make them much more profitable at the prices asked, than those more remote at government rates,—as the additional cost of transportation is a perpetual tax on the latter, which must be borne by the producer, in the reduced price he receives for his grain, &c.

The Title is perfect -and when the final payments are made, Deeds are executed by the Trustees appointed by the State, and in whom the title is vested, to the purchasers, which convey to them absolute titles in Fee Simple, free and clear of every incumbrance, lien or mortgage.

The Prices are from $6 *to* $30—*Interest only* 3 *pr. ct.*

Twenty per cent. will be deducted from the Credit Price for Cash.

Those who purchase on long credit, give notes payable in 2, 3, 4, 5 and 6 years after date, and are required to improve one-tenth annually for five years, so as to have one-half the land under cultivation, at the end of that time.

Competent Surveyors will accompany those who wish to examine these Lands, free of charge, and aid them in making selections.

The lands remaining unsold are as rich and valuable as those which have been disposed of.

SECTIONAL MAPS

Will be sent to any one who will enclose fifty cents in Postage Stamps, and Books or Pamphlets, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad Lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc.,—or any other information—will be cheerfully given on application, either personally or by letter, in English, French or German, addressed to

JOHN WILSON,
Land Commissioner of the Ill. Central R. R. Co.
Office in Illinois Central Railroad Depot, Chicago Ill.
April 9—w&m6m

"KNOW THYSELF:" A MIRROR OF THE MIND, or, Your CHARACTER from your LIKENESS. For particulars, send a three-cent stamp to

FOWLER & WELLS.
June 11—w4tm2t 308 Broadway, New-York.

Berkshire Pigs for Sale!

WARRANTED of pure breed, and at a low figure.

WILLIAM J. PETTEE.
June 11—w&mtf Lakeville, Conn.

IMPROVED SELF-ADJUSTING

HAY ELEVATOR,

OR

HOISTING FORK,

With Anti-Friction Blocks, Ropes, &c.,

MANUFACTURED AND FOR SALE BY

D. LANDRETH & SON,

Nos. 21 *and* 23 *South Sixth-Street, Philadelphia.*

THIS is one of the most important implements in haying; with it a large load may be removed from the wagon and deposited in any part of the mow in a few minutes, without labor and fatigue to workmen, thus greatly facilitating one of the most laborious duties of the farm, besides expediting business—an important matter in saving hay.

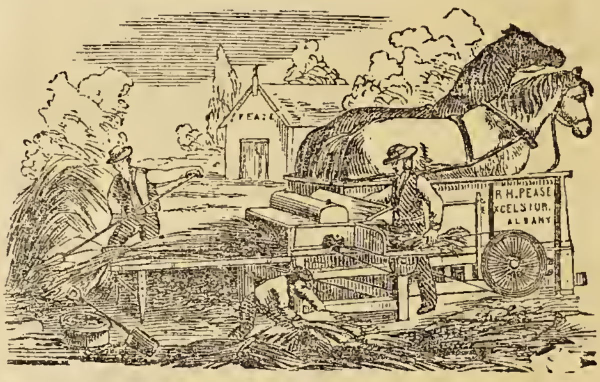
Farmers should be cautious not to use the common blocks. The friction is so great as to cause them in many instances to take fire. With the anti-friction blocks no such danger need be apprehended.

D. LANDRETH & SON,
Nos. 21 & 23 South Sixth-St., Phila.
June 11—w4tm1t.

Please to Read This.

IF YOU WANT EMPLOYMENT, send at once for Mr. SEARS' CIRCULARS TO BOOK AGENTS. Our publications are considered among the most saleable. Address (post-paid)

ROBERT SEARS, Publisher,
March 19—w6tm6t No. 181 William-st., New-York.



Excelsior Ag. Works, Albany, N. Y.

RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered. RICH'D H. PEASE.

CERTIFICATES.

BEDFORD Co. Tenn. Oct. 15, 1856.

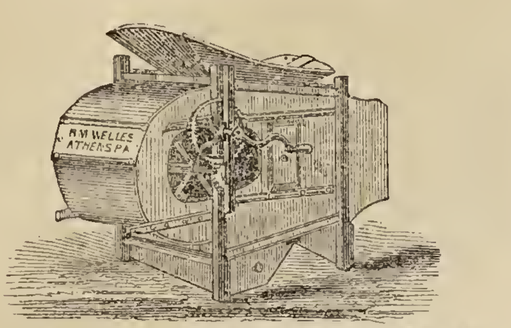
We the undersigned hereby certify that we have purchased of the Agent of the Manufacturer, Richard H. Pease of Albany, New-York, his "Excelsior Horse Power and Thresher," and having used them a sufficient length of time to convince us of their utility and durability, feel no hesitancy in saying that in our opinion they are the very best of which we have any knowledge, they having performed to our entire satisfaction. Given under our hand, day and date above.

GARRET PHILLIPS,
M. L. DISMUKES,
THOS. LIPSCOMB,
WM. A. ALLEN,
J. T. ARNOLD,
W. W. HASTINGS,
JAMES MULLINS.
BENJ. GARRETT,
ALEX. SANDERS.
WM. M. GOGGIN,
ALEX. EAKIN,
REDDING GEORGE,
J. J. KOONCE,
W. C. J. BROWN,
H. D. DAVIDSON.

EAST GREENWICH, N. Y., Feb. 25, 1857.

MR. R. H. PEASE—I received the Two Horse Power, Thresher and Separator I purchased of you, and put it to work to test it. I have threshed 2,500 bushels of wheat, oats and rye with them, without a break of any kind. It works to my entire satisfaction, and I think there is no better machine made. WM. McNEIL.

May 14—w&mtf.



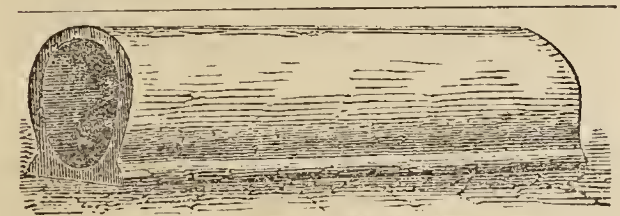
The Elcelsior Fanning Mill.

THIS is the neatest, cheapest and best Fanning Mill known, and is warranted to be second to no other made in the United States, for durability, simplicity, rapidity in doing work, or for any of the purposes for which a first class fanning mill is designed.

Only one size. Price $25. Pulley for power $1.00 extra.

A very liberal discount made to dealers, who are invited to order a sample mill. To introduce our mills into new localities, we will make a liberal allowance on the freight in all sample mills, and on those ordered by retail customers. Manufactured only by us at the Tioga-Point Agricultural works. Descriptive Circulars and Priced lists of all our machines will be sent on application by mail. Address

R. M. WELLES & BROOKS,
May 28--weow2t—m2t. Athens, Bradford Co., Pa



New-York State Tile Works,

On the Western Plank Road, near the Orphan Asylum, Albany, N. Y.

THE subscriber having purchased the Drain Tile works of Artcher & Co., offers for sale the following sized Tile:

HORSE SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches calibre,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches calibre,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

I warrant every Tile perfectly sound, and harder and better Tile than any before made in Albany. If not, the purchaser need not pay for them. I will also undertake draining to any amount, and at any place, and furnish Tile for the same, and ask no pay until the employer is perfectly satisfied with the result. I am also willing to render my services in laying out drains free of charge, to any one who purchases Tile of me.

A liberal per centage will be allowed on orders for 10,000 or more. Cartage free. Gentlemen, your patronage is respectfully solicited. Orders from all parts thankfully received and promptly attended to.

GEO. ALDERSON, Albany, N. Y.,
(Late Artcher & Co.) Office 63 Quay Street.
EMERY BROTHERS, Agents, Corner State and Green Sts.
April 30—w4t&eow3ms—m6t.

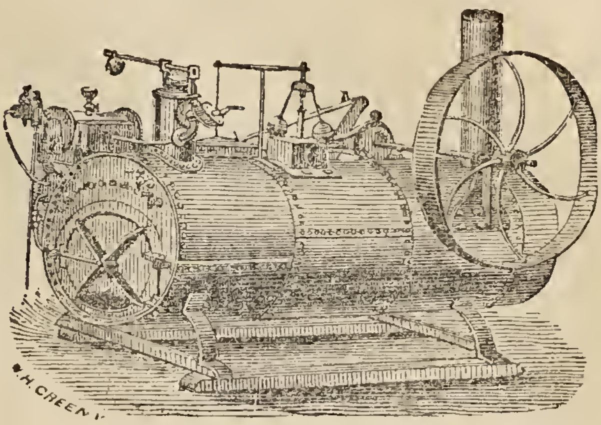
PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

R. L. ALLEN, 189 & 191 Water-st., New-York.

☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.

Feb. 26—weow&mtf



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Eaton, Madison Co., N. Y.

A. N. WOOD & CO.,

Practical Machinists, and Builders of their Celebrated

PORTABLE STEAM ENGINES

For Farm and Mechanical Purposes.

WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

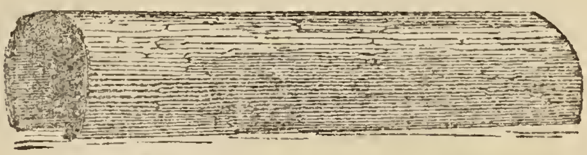
Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

PRICE LIST FOR 1857.

Horse power	estimate weight	space occupied	cash price	fly-wheel diameter	face of wheel
2½	2000 lb.	4 by 5 ft.	$240	39 in.	5½ in.
3	2200 "	5 by 5 "	290	39 "	5½ "
4	2500 "	7 by 5 "	355	40 "	6 "
6	3600 "	7 by 5 "	550	44 "	7 "
8	4800 "	9 by 6½ "	700	48 "	8 "
10	6000 "	10 by 6½ "	875	60 "	8 "
12	7500 "	14 by 6½ "	1050	72 "	12 "

The above price includes boxing and delivered on board cars. A. N. WOOD & CO.

April 23—wtf—June 1—mft.



ALBANY TILE WORKS

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches rise,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches rise.	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y.
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.

Contents of this Number.

THE FARM.

Stable Manure—Dr. Voeckler's Investigations, by Prof. JOHNSON, - - - - - - - - 201
Facts in the Agriculture of New-Jersey—Prof. Cook's Report, - - - - - - - - - 203
Drill Seeding—Increased Yield, by E. DENNISON, - 204
Potatoes on Clover Sod, by B., - - - - - 205
Hen Manure or Guano on Corn, by J. C. TAYLOR, - 205
Culture of Beans, by J. U. A., - - - - - 207
Drilling vs. Broadcast Seeding, by SARATOGA FARMER, 207
Mixing Lime with Manure, by DANIEL MILLER, - 207
How to Manage Fifty Acres, by A FARMER, - - 208
To Apply Hen Manure to Hills of Corn, by D. FARLOW, - - - - - - - - - - - - 208
Underdraining with Stone, - - - - - - 209
Manures—Night Soil and the Droppings of Hens, - 209
Maryland Plan for Tile Draining, by E. L. R., - 212
On the Use of Ashes, by JOSEPH ARNOLD, - - 213
Measuring Hay—Slow to Move, - - - - - 214
Management of Home-Made Poudrette, - - 215
Warming and Ventilating, by G. H. AKINS, - 215
Evan's Rotary Terracultor, - - - - - - 216
The Bean as a Fallow Crop, - - - - - - 216
Remedy for a Wet Soil, - - - - - - 216
Saw-Dust for Litter and as Manure, by H. V. WELTON, 220
Bones as a Manure, - - - - - - - - 221
"Chess in Wheat," - - - - - - - - 228
Inquiries and Answsrs, - - - - - - - 222
Notes for the Month, - - - - - - - - 226

DOMESTIC ECONOMY.

Salt Barrels for Preserving Apples, - - - - 204
Six Valuable Recipes, by J. F. D. L., - - - 214
Hard Soap, by AGRICOLA, - - - - - - 214
How to Harden Tallow, by C. S. HARD, - - - 214
Carrot Pie, by E. E., - - - - - - - - 214
Dairy Management and Butter Making, - - - 218
More about Candle Making, by W. B. HANFORD, - 224
The Woodburn Sale, by S. W. JOHNSON, - - - 225

THE GRAZIER.

Wintering Cattle and Horses, by A. H. BRONSON, - 205
Remedy Wanted, by E. M. H., - - - - -205
Drying-Off Cows, by A DAIRYMAN, - - - - 207
Disease and Death among Calves, - - - - 207
Cure for Caked Udder in Cows, by W. T. L., - 207
Large Lamb, by A. WHEDON, - - - - - 208
Salt, Sulphur and Bones for Cattle, - - - - 210
Remedy for Bad Milk in Cows, - - - - - 210
Value of Cob Meal, by C. T. ALVORD, - - - 213
Mr. Chapman's Short-Horn Bull Duke of Oxford, 217
Another Cure for Warts, by T. K. REDDISH, - 218
Wolf Teeth Once More, by CHARLESTONIAN, - - 220
Valne of Different Kinds of Food for Stock, by C. T. ALVORD, - - - - - - - - - - - 221
Extensive Shipment of Valuable Animals, - - 223

THE HORTICULTURIST.

Mutilated Evergreens, - - - - - - - 206
Experimenters on the Curculio, - - - - - 206
Thumb Pruning, - - - - - - - - - 206
Cranberry Culture, by D. L. HALSEY, - - - 206
Garden Vegetables, - - - - - - - - 208
Planting and Hoeing, - - - - - - - 211
Fire Blight, by DAVID THOMAS, - - - - 211
Early-Bearing Varieties of the Apple, by SUEL FOSTER, - - - - - - - - - - - - 215
The Apple Borer, by J. E. SPILMAN, - - - 218
A Garden for a Farmer, by J. S. SHIPMAN, - - 218
Culture of the Pea-Nut, by F. L. M., - - - 218

THE POULTRY-YARD.

Chicken Roosts, by E. L. R., - - - - - - 208

ILLUSTRATIONS.

Training Mutilated Evergreens, - - 206
Top and Bottom Tiles for Draining, - - 212
Drain as Laid with Tiles and Brick, - 213
To Save Poudrette, - - - - - 215
Evan's Rotary Terracultor, - - - - 216
Short-Horn Bull "Duke of Oxford," - - 217

Superior Suffolk Swine.

THE subscribers have for sale pure Suffolk Swine, bred from their best imported Suffolk stock.

Address JOSIAH STICKNEY, Watertown, Mass.
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Clover and other Grasses for Hay.

Many farmers entertain a strong prejudice against clover hay, especially for horses, believing that when fed to them for any considerable length of time it produces cough, and tends to heaves, &c. We presume the prejudice alluded to, among a portion of our farmers and others, is co-extensive with our country, or at least as far and wide as red clover is grown, and horses are kept and stabled; for in August, 1852, Mr. Ewbank, then Commissioner of Patents, issued printed circulars to almost every section of the Union, propounding a series of questions on rural matters. One of those questions, was: "Does your experience show that red clover is injurious to horses." By refering to the 'Patent Office Report' for 1852–3, we find some twenty-five or more responses to the above query. These answers were from a great number of different States, and as was to have been expected, the several respondents or writers, differed much in their opinions in regard to the good or bad qualities of red clover hay as feed for horses; but a large majority of the responses to Mr. Ewbank's question, were in favor of clover hay as a dry forage for horses, providing it is cut at the right time, and properly cured and housed.

For many years we have kept horses almost exclusively on clover hay through our long winters, and if the clover was cut when about one-half the blossoms had turned brown, and the hay mostly cured in the cock in good weather, so as to retain most of its leaves and heads, and green appearance, we have never known it to produce either cough or heaves. We know of no reason why it should produce a cough in horses, any more than red top or herds grass.

Clover when cut early for hay, as it generally should be, from its succulence, if not well dried before being carrried to the barn in large quantities, is very liable to *heat* in the mow, or on the scaffold; this process produces some injurious chemical changes in the hay. The starch, sugar, gum, &c., first assume the vinous fermentation, producing a saccharine quality in the hay. If the change here be arrested, no bad results would follow, the nutritive and healthy quality of the hay would not be lessened—but generally the vinous runs into the acetous fermentation—this is followed by sourness, mouldiness, and dust. Such musty hay, when fed to horses, when made from clover or any other kind of grasses, would be very likely to produce a stubborn cough, frequently ending in the heaves. It is no wonder that *some* farmers have a prejudice against such clover hay. What would be the value of the medicinal herbs annually garnered up, (while in blossom) by the careful housewife, if suffered to heat and ferment, as is often the case with clover hay?

In making hay from clover, we have for many years practised the following method: In good bright weather, commence mowing as soon as the dew is off; let it remain in the swath till three or four o'clock, afternoon, then with the fork take the swaths up in flakes, and put up cocks that will average about 50 lbs. of dried hay. The cocks remain untouched for twenty-four hours, then they are carefully pitched over in flakes, and two cocks are put in one; from nine to ten o'clock the third day they are opened, and if the weather has been fair the hay will be in good order to get in after dinner, without any liability to heat. Though we generally sprinkle a few quarts of salt to each load as stowed away. This is as short a time as clover can be made by cutting, spreading, turning, raking open, &c., as is practised by many farmers. By the above processes, most of the leaves and heads are left in the field, while by making mostly in the cock, the leaves and heads are principally retained, and the whole mass retains its color and its clover odor, and horses, cattle, and sheep eat it with avidity. It is true we cannot always be sure of three good hay days in succession, and in case of rain, "hay caps" come into profitable use, not only in protecting clover, but other kinds of hay.

In regard to the proper time for cutting grass for hay, farmers differ widely in their views, and we have read almost angry discussions in some of the agricultural papers upon this question—some advocating the cutting of the grass when in blossom; others, when the seed was fully in the milk; while others contend as stoutly, that the seeds of herds and other grasses should be fully matured before cutting them for hay. Without attempting to decide this question, and many similar ones, we have generally thought it about as safe to take a middle course between extremes. However, there seem to be many reasons why grass should be cut for hay before the seeds are fully ripened, and there are good reasons why it should not be cut too early in its growth.

With the present scarcity and high price of labor in many sections of the country, we would recommend to farmers to commence haying as early as their first ripening grasses will do to cut, and to follow up the business of haying as fast as circumstances will allow, believing there is more grass mown too late, rather than too early in the season.

Very much may sometimes be saved to the farmer in having a supply of stout cotton cloth hay caps on hand; there is no theory about this, it is simply matter of fact, to which "we are clear to g'ie our aith." They are not only useful in protecting hay from rain, but are also very convenient for *capping* stooks of grain in the field, and field beans, where they are stooked in the field. They are easily put on the stooks when there is an appearance of rain, and as easily removed in fair weather—their removal gives the sun and air a chance to very much expedite the drying process.

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Quantity and Value of the Manure of Cattle.

Since the publication of our article on this subject (Co. Gent. of March 5th, and Cult. of April,), we have found the following remarks in the report of a recent discussion at a meeting of the London Farmers' Club, England. The gentleman who opened the discussion, Mr. Baker, is reported to have said that he had found, on investigation, that a cow feeding on 100 lbs. of grass gave 71 lbs. of solid and liquid deposit. An ox would produce 1¼ cwt. while feeding on turnips or mangold wurtzel with 24 to 28 lbs. of straw daily; or, in all, about 150 lbs. of solid and liquid manure would be produced by an ox daily. (This, we presume, is true only of an ox of very large size, and weighing about 2000 lbs.) An ox, if kept feeding continually on turnips, grain, and hay, in the ordinary mode, would produce in the seven months of winter about twelve tons of manure; and if foddered in summer about seven tons more. Thus a large ox would produce, altogether, about 19 tons in the yard. In feeding in boxes an ox of average weight, it was said, would produce about 11 cubic yards of manure in four months, or 33 cubic yards if kept constantly in a box for the whole year.

In reference to the value of manures from farm stock, it was remarked that that from horses was much superior to that from oxen, and that from oxen superior to that from cows, and that from old or full-grown animals far superior to that from young animals. A cow in feeding extracts a larger quantity of the nutritive qualities of food than an ox, because food passes more rapidly into the form of milk than that of muscle or flesh and fat. Again, nearly all the food consumed by full-grown animals goes to supply the natural waste of the system, whereas much of that consumed by younger ones is absorbed in the formation of additions to the bones, flesh and fat, and this is the reason why the richest manure is produced by animals already fat and full-grown.

In the feeding of horses it has been found, said Mr. Baker, that this animal produced in solid and liquid deposits taken together three-fourths in weight of what it ate and drank. A well-fed horse would give 9½ tons of solid and liquid manure per annum; and if to this were added about 2½ tons of straw or other litter, the whole amount made by a horse in a stable in the course of a year might be estimated at 12 tons.

In our former paper the two following results were obtained from collating a variety of observations made by different individuals: 1. That an average sized cow, or one fed chiefly on hay and allowed water freely, will make about two and a half pounds of solid manure for each pound of hay, or its equivalent consumed, or, allowing one-fifth for difference between it and in the usual state of dryness, about two pounds for each pound of hay consumed. 2. That the value of the manure made by a medium sized cow in the course of a year would be, according to the usual modes of estimating ammonia, potash and phosphoric acid, equal to between $20 and $23, or a little over $10 in the course of the six months of winter.

A comparison of the somewhat loose estimates which we have quoted, with the results which we obtained as to *quantity*, from collating several observations of the highest degree of accuracy and reliability, will furnish additional grounds of confidence in the conclusions at which we arrived. In making any estimates based on these conclusions as to the *quantity* of manure made by animals fed in stables or at distilleries during the winter, it should be recollected that our conclusions refer to medium sized animals, cows or cattle rather under than over the weight of 1,000 lbs. If the application is to be made to the case of large oxen, from 1,400 to 2,000 lbs., a corresponding allowance must be made according to the gross weight and the greater quantity of food consumed.

As it may seem to many that the estimate given in our former article, as to the *value* of the total deposits, solid and liquid, of a medium sized cow or ox during the course of a year, must be too high, we wish to remind such of the fact, that according to the usual modes of managing manure, far more than half its value is dissipated by exposure to rain, sun and wind, while the liquid portion is seldom saved at all. As manures are usually managed, there is little wonder that some should think them hardly worth hauling and spreading. The virtue has gone out of them.

Then, again, it should be remembered in estimating the value of manures that much, very much, depends on the nature of the food consumed. The more nitrogen there is in the food the more ammonia will there be in the manure. A cow or ox fed on straw, poor hay, and no grain, will yield manure of much less value than one fed on richer food, with oil-cake, &c.

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Bones Partially Dissolved by Fermentation.—With reference to the plan of hastening the process of decomposition in bone-dust or ground bones, by forming quantities into heaps and fermenting them by the addition of water, diluted urine, or drainings from a manure heap, which will be found mentioned in an article on Old Pastures in this week's issue, we find the following remarks in an English paper:—"There are those who prefer from economy, the fermenting of bones without any application of acid. The late Mr. Pusey, (President of the Roy. Ag. Society of England,) was an advocate for this, and published experiments showing that fermented bones were invariably *cheaper* than manufactured superphosphates." This authority in favor of fermented bones is so high, and the practice of thus preparing ground bones for use is becoming so extended in Great Britain, as to render it desirable that the plan of thus facilitating their decomposition in the soil should be tried in this country, and the results reported. Compared with a good superphosphate, containing, as the average of fifty-eight superphosphates analysed by the chemist of the Highland and Ag. Society of Scotland, in 1856, shows that a good one should contain, at least over 17 per cent. of *soluble* phosphates, 16.93 being the average found as above;—compared with *such* a superphosphate fermented bones will not produce so manifest an effect during the first year, but the fertilizing influence will last much longer, which is more desirable in the case of permanent pastures than a more rapid though less lasting operation.

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☞ Mr. Flint, in his Report of the Agriculture of Massachusetts, says that the value of the grass crop of the United States, for pasturage and hay together, is not less than three hundred millions of dollars.—*Ex.*

Pull your Winter Cress.

> "Rid, now, your fields of one year's seeding,
> And save the toil of seven years weeding."—Edwards.

Winter cress is one of the most noxious weeds that ever infested the farm since the expulsion of our first parents from the Garden of Eden. Flourishing equally well on both dry and wet soils, and maturing and fructifying so very early in the season, even before the clover is ready to cut—being a biennial plant, and almost as tenacious of life as the live-forever; getting such a firm hold in the soil in the fall, that the freezing and thawing of the most severe winters does not injure it. It is more to be dreaded than the Canada thistle, (*Circus arvensis*,) or pigeon weed, (*Lithospernum*,) or the very noxious hedge mustard, (*Officinal sisymbrium.*)

Its seed is very difficult to separate from clover seed, timothy seed and all other kinds of grass seed; and it will vegetate where every thing else would not even try to grow. The seed is a small, black, round seed, and after it has lain in the ground where it could not vegetate, for a century for aught that I know, after being turned up by tho plow to the enlivening influences of vegetable life, will very soon hold undisputed sway in any field, either rich or poor soil. Canada thistles are little to be dreaded when compared with it—because if we enrich our soils as they ought to be, and bring them to as high a state of cultivation as is most profitable, Canada thistles will soon be a weed to be spoken of only as a thing that *was*, but is not; while the *winter cress* will flourish like willows by the water courses, and effectually root out all grass and grain within its reach.

Its botanical namo is, according to Dr. Darlington's Ag. Botany, *Early Barbarea.* The lower leaves are lyrate, the terminal lobe obovate or rounded, coarsely sinuate dentate; upper leaves pinnatified with entire linear-oblong segments; siliques linear, elongated, compressed ancipital; style thick and very short.

Root—biennial, (or seed vegetates one season and fructifies the next.) *Stem*—nine to thirty inches high, (according to the fertility of the soil,) somewhat branching. *Leaves*—smooth, lower ones three or four inches long. *Petals*—yellow. *Siliques* (or pods containing the seed) long and slender.

Many farmers mistake this for hedge mustard or what some call *wild* mustard—some call it scurvy grass. But he who has no smattering at all of botany, can readily perceive by comparing the two, that they are very different weeds. Mustard is an annual plant; it springs from the seed and fructifies in a few months; if it vegetates in the fall the winter kills it. The petals, (i. e. the flowers,) are of a little different shade of color. The leaves of the winter cress are smooth, while those of mustard are rather rough and hairy. Mustard seldom appears in good grass ground, while the winter cress grows any where. By plowing it under and covering it well, it will die. But if a few stems are left uncovered between the furrows, the growth will be checked but little. If cut off with the scythe it will soon send up new shoots, which will go to seed before the crop is ready to harvest. The true way is *to pull it* and shake off the dirt, and then throw it in heaps. If pulled and thrown again on the ground in wet cloudy weather, the roots will often get hold again on the ground, and the plant revive again.

Now is the time to pull it. In June, while the grass and crops are yet small, before it fructifies. If a field where it grows seems like a flower garden, let all the forces of the farm be rallied, both old and young, male and female, if it is necessary; it pulls easy, and one will be surprised to see how much can be pulled in a half day. I have but little on my farm, and that I purchased among clover seed. But I would no sooner let any of it go to seed, than I would the baneful Upas to grow on my farm.

Our mutual friend, David Crocker, Esq., showed me a large field yesterday, where he spent last season in pulling it, *eleven days*, and now one hand would pull it all in two hours.

Should any of it escape notice until it has gone to seed, all other business should be suspended, and every stem and pod burned. It is folly to throw it in the running stream, or in the beaten track of the highway; for birds will carry it, or it will find a place to vegetate on some one's soil. Let it be kept from seeding, and it will soon give us but little trouble. S. Edwards Todd. *Tompkins Co., N. Y.*

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To Save Clover Hay.

I adopt the following plan with perfect success. The system of allowing clover to become hay in the field I think an injudicious one, as by it you lose three parts of it and that the best, namely: the leaves, as they, when dried, become dust. I am now feeding mules and oxen with clover cut last June, and saved in the following manner:

I usually cut clover when the lower part of the flower begins to blossom. What I cut on one day I let remain in the swath until the next. I then turn it over, shaking as little as possible, and let it remain so for a couple of hours, when I commence to load. where we first commenced to turn, loading out of the swath. I then put it into stacks as follows: Lay some rails at the bottom, three rails lengthwise, one at each end, and one in the centre; on them a layer of straw a foot thick; on that a layer of clover three feet thick, sprinkling it with coarse salt, and so continue to the top. Oat straw is preferable to rye or wheat, as it absorbs the moisture from the clover quicker than the others, and is eaten better by cattle. The clover will heat, but the straw absorbs all the moisture and becomes clover tasted, and is eaten as well by the cattle as the clover itself. I have put in one stack in this manner the yield of thirty acres, second year's growth from the seed, and I find the larger the stack is the better it keeps.

When your stack is finished, let it be roped with hay ropes, and as the stack keeps settling let them be tightened, as this prevents the stack settling too much on one side, which it will do if this is not attended to regularly. I let it stand in this way until the middle of August, by which time it has become settled.

I then thatch it with coarse grass, sedge, or straw. If these materials are dry, sprinkle them with water, as it makes them more pliable, and then tie them in bundles. Take one end and turn it down; it will then look like your clenched hand, tapering as to your wrist, leaving the material of what even length it may be. You then commence at top of your stack, and put on a straw cap, fastened with pegs. These bundles are next inserted. Put the head into the stack, going down one side of the stack first five or six feet, and as far out on either side as can bo reached; then shift the ladder to one side, and take the part where the ladder stood. If there should be any hollows in your stack, they should be filled up at this time, which is easily done as you proceed, and if not attended to, your stack will leak and rot your hay. I generally thatch the north side of the stack down to the eve, as it stands to the last. When I commence to cut, I do so on the south side, commencing so far up as the layers will come off when cut about five or six feet wide, leaving off at a layer of straw This straw will protect the clover from the weather until next cutting. Cut with a hay knife.

You must not mind if you see your stack of clover hay (which you will) smoking like a chimney. It is all the better for it, and won't burn. I have never had a stack burn, or any of the clover *rot.* I have been frequently asked, when putting clover up in this manner, if I were going to make a large heap of manure with the clover; but when I come to cut in winter, they said it looked like cheese, and that they could not believe it, if they had not seen it put up themselves. GERALD HOWATT. *Sussex Co., N. J.*

Why Don't the Corn Grow?

MESSRS. TUCKER & SON—We are in trouble in this section of the country, and there is no relief for us this season, as I can see. Disappointments are the lot of all men, and we (I would say farmers) generally are the sufferers at present. After a severe winter we hoped for a pleasant spring and summer, but such has not been the case here. Our spring crops look tolerable, but I cannot say so of the corn crop.

It was late in the season when corn was planted. At planting time we had a few days of genial weather, which was improved in planting our corn. In due time many looked for its coming up, but found it had rotted, and set themselves to planting over again with no better success, and even yesterday one of my neighbors came to me to get some King Phillip to try a third time.

I would now ask what is the cause of all this. Is it in the season or in the seed? I took some precaution with my seed, which I raised myself. I sprouted it before planting, and found I could get only 3 sprouts from 7 kernels if hurt on the cob? *Why these three sprouts?* It was sprouted in doors, and the cold could have no effect. These three out of seven were of the small 12 rowed kind. The large 8 rowed was a perfect failure. King Phillip did well in the house, and I believe all sprouted. The three kinds mentioned were all selected in husking time, and all kept in one place during winter. I have since planted some King Phillip and have examined the hills, and I find that some are sprouted and coming up, while others are rotted and will never come. Here is a mystery which I hope you or some of your subscribers will solve. I would say further, that some of my neighbors obtained seed where I did; mine has all come, while theirs are almost a failure. Why is this, and what is the cause? We have had only two days of dry weather in as many weeks past; it is raining now, and but little hope of warm weather at present.

I hope you will urge a discussion of the subject through the columns of your papers, so that farmers may be be benefitted and prepared in time to retrieve their loss another season. JAMES WALLACE. *Cayuga Co.*

Smut upon the Onion.

MESSRS. EDITORS—A serious obstacle has lately come in the way of the culture of the onion, in the form of *smut* or *rust* upon the young plant, shortly after it starts from the ground. I have seen this substance to the extent of an *eighth or quarter of an inch,* in the crotch where the leaf branches from the stock, and wherever it appears the plant surely dies. I learn from experienced cultivators, that it is found more extensively on grounds where onions have been grown for several years, and that the ravages of this variety of blight are more extensive the present than any former year. I have seen half acres together, where the proprietor thought it necessary to plant the ground anew with carrots, or corn, or some other crop, having given up all hope of the maturity of the onion.

This was where guano had been used as the chief fertilizer upon the ground, but whether it *destroyed* where it fertilized, I cannot say. I should be very sorry to believe that it did, for we had hoped much from guano. Please call the attention of careful cultivators to this subject. J. W. PROCTOR. *South Danvers, Mass.*

Pie Plant and Strawberries.

MESSRS. EDITORS.—I would inquire through your columns about the Pie Plant, or Rhubarb: which is the best kind, the largest, and most prolific; also, the treatment of it, soil, manure, &c., when the best time to set out, and how long to remain in the earth before taking them up and separating? When is the best time to set strawberries, how set them, in hills or rows? what manure is best adapted to them? Answers to these questions would, I have no doubt, be acceptable to many in this State, and also oblige A SUBSCRIBER. *Biddeford, Me., May,* 1857.

Many new varieties of the Pie Plant are constantly springing into existence, every plant from seed varying more or less from the parent. The Tobolsk is an early, red variety; the Giant is a large, later, green variety; these are the two leading old sorts. There are many newer and more approved, among which Downing's Colossal is highly esteemed for its excellence, and Cahoon's for its great size. There are now many others, of high merit, under experiment. Our correspondent should however observe, that there is less difference in the inherent tendency to large growth than many suppose, great size depending on the depth, richness, and cultivation of the soil—or as we have heard a skillful gardener remark, "tell me how much manure and deep digging you have given your plants, and I will tell you whether you have the large kind or not."

When Pie Plant is raised from seed, it should be planted very early in spring, and as the seed is about a month in coming up, a few radish seed should be mixed with them, to mark the row, and show where to hoe. The radishes will be large enough to use before the rhubarb has attained much size. It will require three years for the seedling pie plants to be ready to use. Although seedling plants will vary in character, yet from fine sorts all will be good. To preserve the exact identity of any variety, the roots must be divided in autumn by cutting each eye separately, and planting out about two inches below the surface, protecting them through winter by a few inches of leaves. The second year they will do to use. They may be divided about every three years, the time varying however with the richness of cultivation. The size will depend much on their having plenty of room—which should not be less than two feet in the row, and the rows four feet apart.

The best time to set out strawberries is early in spring—next best, during the half dormant season immediately following the fruiting. Either "hills" or rows will do. The best manure is a well rotted compost in which there is a large share of vegetable mould—but its amount and character must vary with the previous condition of the soil

COMPOST HEAPS.—A heavy task at cartage may be saved in making all compost heaps consisting of turf, loam, or muck in alternate layers with the manure, by avoiding the practice of making those heaps in the barn-yards, requiring carting the loam or turf from a distance, and adopting instead the practice of placing them as near the land where the compost is to be applied as practicable. If these ingredients can be had at the same place a double cartage may be saved. Such heaps may be now made, to great advantage, and furnish an excellent manure for autumn application.

Care of Tools.

Every farmer and gardener should remember that tools are more rapidly injured by exposure in summer than at other seasons of the year. The hot sun cracks them, opens crevices in the wood, which the dew and rain fill, and thus decay goes on rapidly, while they are warped, distorted, and weakened.

There are two remedies, which must be jointly applied to prevent the great loss which many farmers suffer by this exposure of tools.

1. Make a list of all tools, implements, carts, &c., and write it largely and plainly on a large sheet of stiff pasteboard, or on a painted board prepared for this purpose. One column may be for hoes, spades, iron rakes, and other of the smaller iron tools. Another may embrace hay-rakes, scythes, ladders, &c. A third may include chains, crowbars, &c. A fourth, plows, harrows, scrapers, and barrows. A fifth, carts, reapers, drills and other larger machines.

2. Every day at evening, as regularly as the cows are milked and supper eaten, run over this list and see what tools have been used that day, and see that all are in their places. Once a week examine every one more particularly, and see that it is in good condition, and put away bright and clean, and not coated and clogged with dirt. Unless this regular review is made and all workmen are made responsible for the tools they use, and understand that it is expected of them to house their tools every night, many will be injured by exposure, at a loss far greater than all this trouble; many will ultimately be lost; and lastly, and by far the greatest evil, will be the hours expended in hunting for those which have been misplaced, with work hurrying, men standing idle, and teams delayed, in anxious and vexatious searches—while every one will earnestly protest that *he* "did'nt have it *last*," and "never lost any thing."

"Why, I expected to use it again in the morning and I didn't think it worth while to bring it in just for one night." But it rained the next day, and the field was too wet to work again that week, and the next week this man was absent on the day it was wanted, and no one else knew where to find it, and we were all delayed over an hour hunting for it, which threw several other jobs out of time and order—while the time occupied in bringing in the tool would not have been two minutes.

Many farmers have expended more than five hundred dollars on the different implements they use; and they are broken, decayed, or worn out in one-fourth the time they would last if properly cared for—that is, four hundred out of the five hundred are sunk by carelessness. A single day of warping in the sun does not injure them "*much*," it is true; and a single nights' exposure to rain or heavy dew, in filling up the cracks the sun has made, may be an equally small damage; but a repetition day after day, week after week, and year after year, rapidly loosens the joints, and deepens the decay, until some extra strain upon them gives the finishing stroke.

Keeping tools *well painted*, will make much difference in their durability on the long run. The paint should be of a light color, so as not to heat in the sun's rays. Those parts, as for instance the fellies of wagons and cart wheels, which are much exposed to moisture, should be the more frequently painted. A vessel of prepared paint, (with a closely fitting lid, to prevent evaporation,) should always be on hand, to be used in painting tools on rainy days.

The coarser tools, &c., such as harrows, hay-rakes, &c, will be benefitted nearly as much by frequent *whitewashing with lime*, as by painting. Apply the lime wash when they are well dried, so that the pores may absorb the lime freely, and the greatest benefit will result. The white color, preventing heating in the sun, will be a material advantage. An experienced painter has given it as his opinion that whitewashing the coarser articles of the farm, and doing it as often as once a year, will be quite as beneficial as coating with oil paint, while it will be many times cheaper.

Transplanting Strawberries in Summer.

In reply to inquiries for the best mode of transplanting strawberries in summer, we furnish a few brief hints.

The best time is always early in spring, as, at that time, we have only to set out the plants with ordinary care, for all to grow. They will bear abundantly the second season, and if kept clean and cultivated, for two or three years afterwards. If allowed to run the season of transplanting, and not cultivated except in the early part of the season, they will give a full crop the next year, but not afterwards. Some good cultivators think it best and most economical of labor to plant a new bed every year, and to let the bed run full of plants, for only one year's bearing. They find it easier to plant out a new bed in spring, than to cultivate the old one through the season. The crop is not, however, so fine, when thus treated.

Transplanted immediately after bearing, and while the plants are somewhat exhausted and consequently in a partially dormant state, strawberries will do well, and afford as good a crop next season, as by spring transplanting, but more care and labor are required. The ground is first to be prepared by properly enriching it, and making it clean and mellow. The amount of manuring must depend greatly on the previous character and condition of the soil. If naturally fertile, and if it has been well previously manured, little need be applied; if not largely composed of vegetable matter, a quantity of leaf mould or well prepared peat will be found very useful. Where much manure is needed, a compost with a large proportion of such vegetable matter is always best.

The plants should be selected from the youngest well rooted runners of the previous year. They should be lifted out with a spade, and the earth shaken off, and not *pulled out*, as is often done to the injury of the roots. All the fully expanded leaves are to be clipped off, leaving only the small, half-open ones. The roots are then to be dipped in mud made in a pan or pail for this purpose, thick enough to leave a coating on them about the fourth of an inch. They are then to be transplanted, spreading out the fibres as much as may be convenient, and taking care not to cover the crown. If the soil be dry, they should all be watered heavily, and an inch of mellow earth drawn over the watered surface, to fill up the settled earth. A mulching is then to be applied about an inch or an inch and a half thick, of fine, partly decayed stable manure. This will prevent the surface from drying and becoming hard and crusted; and if watering should afterwards be necessary, which however can only happen in extremely dry weather, this mulch will keep the surface moist and in proper condition. Treated in this manner, all or nearly all the plants will live, and furnish an abundant crop next year.

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☞ The June exhibitions of the Washington (D. C.) and Brooklyn Horticultural Societies, appear to have been successful and well attended. We find nothing in the published reports to call for particular notice.

Hints from the Horticulturist.

The last number of the Horticulturist contains many valuable practical hints, which we glean and present in a condensed form to our readers.

Hardiness of the newer Raspberries and Blackberries.—Charles Betts, of St. Joseph's Co., Michigan, gives the following results of the past severe winter in that region :—*New Rochelle Blackberry* requires protection. The *Hudson River Antwerp Raspberry* had about one-third of its last year's shoots killed; *Brinckle's Orange*, "not much hurt;" *Col. Wilder* and *Knevett's Giant*, only the tips injured ; *Vice President*, killed more than halfway down ; *Cushing*, killed down to snow line. The *Thunderer*, nearly as hardy as the common *Blackcap*. [We may add, that even hardy sorts bear earlier and better by being protected, the cold retarding growth the following Spring, even if it does not kill—we have known a hardy tree kept back from expanding its leaves for *three months* by the intensely cold weather of 1854–5, and afterwards grew finely.]

Tan for Mulching Strawberries, has been highly recommended, but from the editor's experience appears to be very uncertain, either from its varying condition or other causes. He remarks, "we have known it utterly to kill the plants, and in other cases to benefit them remarkably."

Glass Labels, for sticking into the soil to mark plants, have been introduced in England, price sixpence per dozen. They are over an inch wide, nearly a quarter of an inch thick, and six inches long. The name is written on with diamond, and is very visible when seen against the black soil below. They are neat in appearance, and of course do not decay.

Roses.—A late work gives the annexed list of Hybrid Perpetual Roses : "The following are the best Hybrid Perpetual Roses in the greatest number of instances : Géant des Battailles, Baronne Prevost, Duchess of Sutherland, Mrs. Elliott and LaReine, (two uncertain kinds, however.) William Griffiths, Madame Laffay, and Madame Rivers, Pious IX. and Robin Hood, Général Jacqueminot, for brilliancy, and Dr. Marx, or Robin Hood, or Augustie Mie, or Baronne Hallez ; but after the first six or eight, there are a dozen of about equal merit."

New Fruits.—The committee of the Mass. Hort Society, consider the *Rebecca* grape as superior to the *Diana* The *Jenny Lind* strawberry took the $50 plate, and Sir Harry. Admiral Dundas, and Sir Charles Napier are regarded as among the best newly introduced sorts. *Knevett's Giant* and *Brinckle's Orange* raspberries are specially approved. The following American pears are commended :—Sheldon, Lawrence, Brandywine, Boston, Seckel, Tyson, Andrews, Lodge, Kingsessing, Howell, Oswego Beurré, and Adams.

Western Pomology.—A Kentucky correspondent says, "we want a western pomologist—all the works now written, so far as I know, are by *eastern* men, who are *wholly unacquainted* with our fruits." What will such men as P. Barry, Charles Downing, and others say to this, who have seen all the best collections at the western pomological exhibitions, as far west as Iowa,—who have had large collections of western fruits sent them ; and who have fruited at the east some of these same "unknown" sorts, ten or fifteen years ago, before they were scarcely known even to western men themselves?

Southern Fruits.—A southern correspondent states that peaches grow so luxuriantly that even in Southern cities the call for them is very limited. Yet he states that one cultivator realized $5,000 by shipping peaches to New-York market. A little enterprise might make this a large and profitable business, as the Early Tillotson, one of the very best early peaches in the south, ripens there about the time of our earliest cherries and strawberries. The Morello is the only cherry that succeeds well there. The Bigarreaus and Dukes bear blossoms abundantly, but the fruit never sets. The curculio is abundant—salt, chickens, swine, and other remedies fail—jarring down on sheets is the only remedy that succeeds, and that is impracticable on a large scale.

Overhanging Fruit.

The papers are discussing variously the right of a landowner to the fruit which hangs across the line into his neighbor's garden. It appears that lawyers have given different opinions, according to the fact whether they themselves own on the one side or the other. We know but little of law, but equity is very clear on the subject.

A. has no right to turn animals into his own field, that will leap a good fence, or burrow under it, into B.'s land—this is self-evident with every person. On the same principle, he has no right to plant and nourish a patch of Canada thistles near the line, the roots of which will push under the fence and spread through B.'s fields, or the seeds of which will be scattered over the fence. Now, if A. plants a line of fruit trees along B.'s boundary, one-half the roots extend into B.'s soil, and one-half the branches shade B.'s surface. Has A any better right, thus to burrow under the fence, and to throw branches across the top, than he has to place animals in his field that will pass under and over a good line fence? There can be but one answer to this question.

But B. has not an equal right to all the fruit on his side of the fence, for he incurred no expense in planting the trees B. cannot therefore claim the fruit ; but he may claim an amount of damages equal to the annual value of land occupied and shaded—which may be paid in fruit or in such other way as A. and B can agree between themselves, or which may be decided by a third party acting for them.

Horticultural Items.

The Salad Ground near Erfurt, in Germany, said to be wholly planted with water cresses (Nasturtium officinale) has yielded an annual prefit of $60,000.

Burning of the Foliage, in vineries is caused in most cases by the roof being far to flat. With ordinary care, it is next to impossible to burn the leaves of the grape vine, if the house is at an angle of not less than 45°. E. S.

The Famous Peach Tree of Chatsworth. occupying a glass house by itself, and extending over a trellis of a hundred feet long, bore, in the year 1850, 926 perfect fruit, 7801 having been removed in process of thinning. The sort is the old Royal George. A J D.

High Prices.—$300 has been paid near London for an acre of cabbage ; $500 for the same of Rhubarb, $700 for white coss lettuce, and $750 for an acre of strawberries. James Cashill.

Venerable Orange Tree.—There is an orange tree still living and vigorous, in the orangery of Versailles, which is well ascertained to be above 400 years old. It is designated the Bourbon, having belonged to the celebrated constable of that name in the beginning of the 16th century, and been confiscated to the crown in 1522, at which time it was 100 years old.

A crown is placed on the box in which it is planted, with this inscription—"Sown in 1421."—*Extract from a journal of* 1828.

Immense Grapevine.—There is, or was, an enormous grapevine, of the wild native species, growing at West Hill Farm, two miles from Burlington, N. J., which, at three feet from the ground, measured *six feet one inch round*, and at ten feet, had a circumference of three feet. It runs over and covers four trees, one a full sized white oak.

A Little Dilute Liquid Ammonia, says the Scientific American, poured upon a hot iron plate in a green-house, has a wonderful effect in developing flowers and leaves.

Improved Breeds and High Prices.

Messrs. Editors—Allow me a few remarks in reply to J. W. L., in your 230th number, upon the value of "improved stock." There is no question but that any peculiar qualities may be propagated and even magnified in successive generations by judicious breeding, and that "native" cows may be made good milkers. But in the rejection of "improved breeds," your correspondent simply proposes to begin anew in the direction of accomplishment, that which has already been done, and which a single life-time is not able to affect. What are "*native*" breeds, but breeds once "*imported?*" What should we think of a man in England who should prefer the small Welsh sheep of the mountains, or the coarse heath sheep, to the Bakewells or the Southdowns,—upon the principle of improving for himself and putting down exorbitant prices? The reasons against such folly are two: 1st. There is no proof that the Welsh sheep or the Black Heath could ever be made to rival the Bakewells or the Southdowns, one an "improved," and the other a *pure* breed. There is nothing analogous in recorded breeding. 2d. There is no prospect of any man in a single life-time attaining the end, if sought, and possible!

J. W. L. says, "fixity of type" may be obtained by "breeding in-and-in," and in no other way! Now we assert, without fear of successful contradiction, that fixity of type can neither be acquired nor maintained by "breeding in-and-in," but, on the contrary, it will surely be lost by such process

The same laws, some allowance being of course made for moral influence, govern other animals, as man, in propagation and development. How has breeding "in-and-in" affected men? By producing disease, idiocy, blindness, diminution of size, and impotency. This article will not allow a full discussion of this subject, but I would say that "breeding in-and-in," that is breeding animals of near family blood with each other, has this effect: If judicious, it may make the bone finer, the form more symmetrical, and give greater tendency to fatten. But then you lose size, hardiness, health, and bring on, ultimately, *impotency*. The whole thing depends on the philosophical result of impotency, towards wheih point "breeding in-and-in" tends. Now castration tends to produce finer bone, more fat and plumpness, and consequently symmetry—than potency; but these points may be gained by other means, without any of the fatal and dangerous results of this great violation of nature's law. For in a state of nature, where promiscuous intercourse is allowed, its abuse is purged off by the fact that "in-and-in" bred animals, are soon driven off by the more vigorous and potent masters of remote crosses. The true basis of "fixity of type" is in *purity* of race, under judicious crosses of the same race or family.

A good race is always injured by connexion with an inferior race—the inferior race is always elevated or improved by the superior, which is always the loser!

Now, your correspondent admits that a cross of the Short-horn upon the native cow produces a "marked" effect; that is, an effect which the most judicious cross of the native upon the native has not and never can produce! What is this but giving up the whole argument in favor of the superior race?

The whole theory of improvement of vegetable and animal life depends upon increased facilities of development; that is, increase of *quality* and *quantity* of food, heat, light, air, &c.—all the vital elements. Now, an improved breed will, of course, be more rapidly deteriorated by an opposite direction of these forces than an unimproved one—upon the same principle that the born poor suffer poverty with a better grace than the rich made poor!

Now if any man proposes to feed on "oat chaff and cut corn-stalks," let him avoid all improved breeds of all domestic animals. But if one intends to keep pace with the progress of the times, let him by all means avail himself of the experience and advancement of our race. The writer of this article has large experience in this attempt of improvement of breeds, and he at last rather reluctantly, but as decidedly, settled down into the maxim, "you can't make a silk purse out of a sow's ear."

J. W. L seems to think that the breeders of "improved cattle," I should say *pure*-blooded cattle, have been compelled to resort to new importations, because the breeds have run down in America. Such is not our experience in Kentucky; the latitude is as favorable to "Short-horns" as England. On the contrary, some of the best specimens of Short-horns are of the oldest importations; and our best judges declare nothing is to be gained, and much may be lost by a resort to England for new bloods!

No doubt the price of Short-horns is too high for small farmers, or "farmer's of small means," at $100 to $500 for a calf "six months old," but it is not true, as many intimate, that this is an artificial or fictitious price. Price may be inflated temporarily by chance, or interested parties: but there is nothing in the history of men which proves that a useless thing can, for any length of time, be kept up to high prices. This the Short-Horns have done for more than half a century; and now they bear higher prices than in the first furore of a *new* breed! These things do not happen without a cause The rapid appreciation of this breed of cattle depends upon their intrinsic value, and the great law of demand above the supply, in consequence of the large area of new land opened up in America, during the last century, by men whose intelligence will not allow them to attempt the empiricism of making beef upon "oat chaff and cut corn stalks!"

Just so long as a Short-horned steer may be made to go into the New-York market weighing 1,800 or 2,000 lbs. gross, and bring 12 to 15 cents nett, whilst the "native" breed comes into the same market at five or seven years of age, weighing from nine to ten hundred pounds, and selling for eight or ten cents a pound, or figures approximating these: $100 or $500 will be given, if not by one, by many farmers of small means, for "a calf not six months old!"

In my country, now, a native calf at weaning time would be dull at $5; a grade calf of the Short-Horns brisk at $15. Here, then, is an every-day practical difference (good feeders won't take the "natives" at any price,) of ten dollars on the head at weaning time. How long will it then take to pay for a bull at even the extreme figure of $500?

No doubt many Short-horns are sold at fancy prices: the wealthy will indulge their tastes at whatever cost; but instances of that kind are rare. Master Butterfly lately went to Australia at $6,000. Now I am not prepared to say that the owners gave too much, and will not make money out of him, but this I will fearlessly say, that if the people of that new continent had but one chance of getting the Short-horned breed in all the world, it would not have been a hard bargain for them and their posterity to have given, instead of $6,000, $600,000 for a single animal! C. M. C. *Madison Co., Ky.*

Chester County Hogs.

MESSRS. L. TUCKER & SON—MR. GEO. FOLSOM of Zanesville, O., in your issue of June 4, asks some questions relative to our "Chester County hogs." I was in hopes that some one among your many readers in this county, better posted up in such matters than myself, would have furnished the desired information, but as Mr. F.'s queries remain unnoticed as yet, I have thought that perhaps a "poor answer would be better than none," and accordingly have hastily thrown together some of the leading traits and points of the Chester hog, as I find them established among the farmers of our county.

The Chester hog is the result of continued careful breeding and judicious crossing in this county, during the last thirty-five or forty years. The first impulse to this improvement, it is said, was the importation of a pair of handsome hogs from China, some forty years since, by a sea-captain then residing in this vicinity. Of late years, however, many of our breeders have been laboring to bring the Chester hog up to an acknowledged standard of excellence—to define its points, and make it as distinctive in character, and as easily recognized as a Berkshire or Suffolk. Their efforts, we think, have been successful.

The genuine Chester is a pure white, long body and square built, with small, fine bone, and will produce a a greater weight of pork, for the amount of food consumed, than any other breed yet tried among us. A very important characteristic of the breed is, that it will *readily fatten at any age.* Many hogs, it is well known, will not fatten while they are growing, or until they have reached their full size.

The average weight of the Chester stock, at sixteen months old, is from 500 to 600 lbs., and when kept till two years old, they frequently run up to 700 and 800 lbs. Our spring pigs, when killed the following fall, weigh from 300 to 400 lbs., which is considered the most desirable weight for pork—producing hams of a more salable size and better quality. As a general rule, our farmers do not care to have their hogs weigh over 350 to 400 lbs. To reach this weight at 9 months old, our hogs, of course, must be well fed. The Chester is not different from other stock in this respect—to thrive well, it must be well taken care of.

Experiments have been made in crossing the Chester with other breeds—such as the Berkshire, Suffolk, &c., and the result has been an inferior stock to the pure Chester. It *does* improve the Berkshires to cross them with the Chester, but we have found no advantage in crossing the Chester with any other.

Mr. Folsom inquires, which is the larger and more profitable, the Chester or the Suffolk. Our experience is, that the Suffolks will not endure either severe heat or cold, and though they fatten readily, the bacon has no proved equal, nor will they weigh *half* as much as the Chester, at the same age and with the same feed.

The demand from abroad for the Chester breed has been increasing for several years past, till it has become quite an extensive branch of trade among some of our farmers. Among those who are more largely engaged in raising them for sale, whose names occur to me at present, are Mr. Thomas Wood, Penningtonville, Chester Co., and Mr. Alfred A. Tangny, West Chester, Pa. Mr. Wood told me recently, that he had supplied orders from ten different States within a short time past. I allude to this, and might further add for the information of your readers, that these gentlemen are entirely reliable, their stock of undoubted purity, and I presume that they are ready at all times to answer questions, or drive a fair bargain with any or all that may want to test the merits of our "Chester County" porkers. J. L. D. *West Chester, Pa.*

We have also received a note on this subject from *R. S., Newcastle, Pa.*, who says in relation to Chester Co. and Suffolk hogs: "I am breeding both of pure blood, and they are a great deal larger hogs and as good grass hogs as the Suffolk,—being as fine in every respect, containing all the best qualities of the best hogs ever bred in this county. At the age of from eight to twelve months, they will weigh one-third if not one-half more than the Suffolks."

Early Beef in Wisconsin.

MESSRS. EDITORS.—The "Wisconsin Weekly Free Democrat"—published at Milwaukee—of June 3d contains the following paragraph, which, if not equa to some of the large colts lately noticed in your valuable weekly, may probably find a place in your columns as an item of evidence in the case now before the public—Hereford, Native and Devon, vs. Durham. "*Early Beef.*—Last week, Messrs. J. & F. Layton sold to Mr. Grange, of this city, a pair of half-bred Durhams, bred by John P. Roe, Muskego, and sired by his imported bull. One of them was a heifer, which brought a pair of twin calves this winter, and was only one year and ten months old, and the other just two years old. The pair together weighed 2710 lbs., and had no other feed through the winter than good hay. At six dollars per 100 lbs., the price of first quality beef, they amount to the snug little sum of $162.60; a pretty good argument in favor either of Mr. Roe's breed of cattle, or the quality of Mr. Layton's hay." JOHN SMITH.

Lightning Conductors.

As this is the season of the year that the most danger is to be apprehended from the effects of lightning, the writer hopes he may be pardoned for publishing the following suggestions for the erection of safe and *cheap* conductors. If one human life is saved through the means of this publication, those who are engaged in the sale of conductors at such exorbitant prices that but few purchase, should not allow themselves to complain, but feel thankful for the timely hint. If the property contained in one barn even, is saved from destruction by this simple means, the writer will feel amply rewarded for his trouble.

There being no dispute about the perfect safety of conductors to life and property, the only questions to be considered are, which are the safest and cheapest? There is no person familiar with the subject who will not say that soft iron rods in one continuous length, projecting to a sufficient height above the highest point of a building, and terminating in a well or cess-pool, or in damp earth, are the best electrical conductors known. Now, instead of erecting a single rod from the center of the building, and running over the roof, with fancy points and colored insulators, such as are hawked about and sold at high prices, put up as many as you have chimneys at least, and one at each gable end or high projecting point of every out-building. To do this cheaply, purchase a coil of quarter-inch iron wire, and as many small staples as may be required; saw off as many pieces of bone of proper length and size, with a hole of suitable dimensions for the wire to pass through and with a ladder and the help of one man, a person of ordinary ingenuity can put up a dozen rods in half a day, at a cost of *one cent a foot.* Who will run the risk of life and property, when perfectly safe conductors can be erected for less than a dollar a piece, including the cost of putting them up? E. J. MCCARTHY. *Saugerties, N. Y.*

Manures—Muck, Peat, &c.

In previously published numbers, under the above heading, we have written mostly on animal manures, In this, we shall have something to say on swamp-muck, peat, vegetable mold, and leaves from the wood-lands, spent-tan, saw-dust, &c. We are fully aware that much has been published upon the above subjects, and it would seem as though nothing new could be said respecting their value to the farmer. But manure is one of those subjects that will bear "line upon line," for in one form or another it is the life-blood of successful farming in all the older and long cultivated sections of our country; and the better the farming in any country or section thereof, the better is the true value of manures understood and appreciated, by the cultivator of the soil, whether he tills a farm of hundreds of acres, or only a kitchen garden.

The most abundant resources for obtaining materials for improving our exhausted soils, in connection with farm-yard manures, are the rich deposits of our swamps, peat-bogs, &c. These are spread all over the country in patches of a few rods square, to tracts of hundreds and thousands of acres. These deposits are mostly made up of decaying and decomposed vegetable matters and the finest particles of soil. There seems to be a material difference in the manurial value of swamp mucks taken from different localities, even when to the eye they present no perceptible difference in their texture or composition. Some are so constituted that they are, in their natural state, a good manure for grass-lands, for potatoes and some other crops. We have more than once seen the rankest kinds of clover and herds-grass grown upon the borders of a ditch, from which the muck had been thrown out and spread for a few feet in width; and we have also seen great crops of potatoes grown in drained swamps, without the aid of any manure. We have also seen, where the muck has lain for two or more years, the whole covered with a dense mass of Kentucky blue grass, or what is about the same thing in New-England, June grass. And we will just say here, that where the tough swarded June grass naturally grows, the soil is naturally adapted to a healthy growth of corn, wheat and timothy, or herds-grass.

There are others that do not materially differ *in appearance* from the kind above named, yet in their raw state they would actually prove detrimental to most crops, if liberally applied to the land without any previous composting or preparation. The cause of this difference is partly due to the different plants of which the muck is composed, and also in the freeness of organic and mineral acids in the better kinds, and excess of vegetable and mineral acids in the poorer kinds. These last are peculiarly favorable to the growth of sorrel. During a dry autumn, several years ago, a farmer dug from a swamp some twenty loads of muck, and left it in a pasture, where it remained about one year, when it was carted to his barn cellar. An inch or two of the fine portion of the heap was left on the ground. The next year the ground was destitute of vegetation; the following year the spot was covered with a dense mass of sorrel, and has so remained. Another dug about the same quantity from his swamp, which was carted out, and remained till the following summer; but instead of sorrel, the white clover and June grass sprang up.

In the first case the basin shaped swamp was surrounded with rocks and ledges of gneiss rocks, largely impregnated with sulphur and iron; where exposed to the atmosphere, they gradually decomposed, forming sulphate of iron (copperas); this is readily soluble, and was washed into the small swamp, and the muck was saturated with copperas water, salts of iron, and other acids,* hence its unfitness for manure in its natural state. Such muck should be dug and laid in long, narrow, conical ridges. In course of one or two seasons much of the acid would be washed out, and some other changes would take place so as to very much lessen its deleterious and acid qualities. It might then be used in composting with green manure, spread over the barn-yard, or thrown into the hog-yard; a few months time would render it a salutary manure. Or, after having lain a year or so after being taken from the swamp, it might be profitably composted with with lime. The results of this would be, to take up the sulphuric acid from the iron and alumina (if there was any clay in the muck), thus destroying the easily soluble copperas and alum, and forming the almost insoluble sulphate of lime, or gypsum. In this case the farmer gets healthy, decomposed vegetable matter; peroxide of iron, alumina, and gypsum, and all these are retainers and fixers of the ammonia of the manure applied to the land, and of that also, which falls in the rain and snow

The best kind of muck spoken of, grew in a similar basin-shaped depression, surrounded with granite rocks: their slow and gradual decomposition afforded potash, which in some degree seemed to neutralize the acids of the muck; no white moss grew in this swamp, neither was the muck saturated with copperas water. It possessed all of the good qualities of the poorer, acid kind, and none of its bad qualities, hence it was favorable to the growth of the white honeysuckle, June grass, &c., almost as soon as dug.

We believe there are hundreds of our farmer readers, that are perfectly familiar with the differences in the value of swamp mucks as we have described. The same remarks will apply to *real peats.* Perhaps in their ultimates, there is no great difference in swamp muck and peat; but it is frequently difficult getting the compact stringy peat into an equally fine state of division with the less coherent muck.

Most farmers are now aware of the great value of muck, &c., as absorbents in taking up and retaining the liquid portions of manure. But decomposing vegetable matter in the soil, and in the processes of vegetable growth, plays other important parts than in absorbing the urine and retaining the ammonia of manure, and that brought to the fields in rain and snow water.

It is principally due to the vegetable accumulations of our forest lands, that they are so productive for years after they are first cleared. There is a rawness and acidity in these accumulations, that are unfavorable to the healthy growth of most of our cultivated crops. But in clearing land, the trees are generally felled and burned upon the ground, the potash of the ashes neutralizes the acidity of the unburned vegetable matter, and thus prepares the land for luxuriant crops of grain, grass, &c. All decomposing vegetable matter produces acids, from the best extrå Genesee flour down to apple pomace. Dough made from the best of wheat flour, when over-fermented becomes sour. But the prudent housewife does not throw her dough out of the window or into the swill-tub, because it has become acid. No, she adds a little saleratus or soda; its sourness is neutralized, and she thus makes a sweet palatable bread. So the ashes of the burned forests neutralize the acids of the rotted leaves and wood of the newly cleared land, and thus prepare it for the production of heavy crops. The decomposition of vegetable matter, as already said, produces acids; the decomposition of all animal matter produces alkalis—that is, ammonia; this, like potash and soda, possesses the quality of combining with and neutralizing acids—thus, animal flesh, or manure, composted with swamp muck, will yield ammonia, and this, combining with the acids of the muck will neutralize them, and prepare a healthy food for our crops.

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* The muck was covered with a dense growth of the sphagnous, or white moss.

As long as a dry soil contains a good supply of decomposing vegetable matter it will usually produce good crops, but in time it becomes used up, then the plow and manure must follow. During the rotting of the vegetable matter of the recently cleared land, this vegetable matter as it decomposed, produced carbonic acid; this in the soil with water, displaced the silicic acid in combination with the potash of the feldspar portion of the soil, and thus slowly supplied potash; a similar process liberated the lime and other mineral matters of the soil. This vegetable matter renders a dry soil more retentive of moisture; lightens a compact, heavy soil, and yields by its decomposition, direct food to the new growth of plants. It also supplies carbon, in the form of carbonic acid, directly to the roots of the plant. Doubtless much the greater portion of the carbon, in all woody and herbaceous plants, is derived from the carbonic acid of the atmosphere. But experiments seem to prove, that an atmosphere containing a much larger proportion of carbonic acid than does ours, is favorable to the more luxuriant growth of plants; if so, then we can supply it to the soil, by adding more largely of properly prepared decaying vegetable matters, such as our swamps afford.

Theory would seem to indicate that some soils may be cropped for an indefinite period, with a certain kind of plant, without exhaustion, if only manured with little else than readily decomposable carbonaceous matter. How far practice will, in this, sustain theory, might be readily ascertained.

To illustrate the foregoing we will take the sugar making of Louisiana. The sugar cane is cultivated solely for its sugar. Sugar cane is composed of water, woody fibre, and soluble matter or sugar. In round numbers the proportions are 72 per cent of water, 10 per cent woody fibre, and 13 per cent of sugar. Sugar is shown by organic analysis to consist entirely of carbon, and oxygen and hydrogen; these two last are in the same proportion in which they form water.

"It was formerly doubted whether any of the carbon of plants was derived from the soil, but later rerearches have put this point at rest, and have shown that a large portion of this element is derived by plants from the carbonic acid evolved from vegetable substances during their decay in the soil, either by its inhalation into the roots in an æriform state, or by its first entering into solution in the water found in the soil, and being afterwards absorbed in this form by the roots. The experiments of Sir Humphrey Davy on this point, appear conclusive; that eminent chemist having shown that different plants and grasses grow much more luxuriantly when watered with solutions of sugar, than with common water; the two liquids differing in nothing but the presence of carbon in the former, and its absence in the latter.'

"The oxygen and hydrogen found in the sugar cane in the state of water, or as constituent elements of the sugar and woody fibre, form about nine-tenths of its weight, and are entirely derived from the atmosphere and from water, thus abstracting nothing from the soil. Now if the bagasse. (the crushed cane,) and the leaves and tops of the cane, were returned to the soil, says Mr. Fleischman, 'we should never hear of a soil being worn out on a sugar plantation in Louisiana.'"

The carbonaceous matter and the trifling amount of mineral matter in the cane, would seem all that is necessary to keep up the fertility of these soils. The vegetable accumulations of our swamps, properly prepared and freely applied, would undoubtedly do much, very much, in keeping up the fertility of our soils, even where the crops abstract much more largely of the mineral bases than does the sugar cane. We have spun a longer yarn than we thought of when we commenced this, therefore, we must defer noticing tan, saw-dust, &c., named at the commencement of this article.

Work-Shops and Stormy Days.

Every farmer who has boys should provide them a *work-shop.* It may be a building erected on purpose, or else partitioned off from the carriage-house, corn-house, or other out-building. Let it be neatly made, and not unpleasantly situated, for it should be attractive and not repulsive to those for whom it is intended. It should be tight, and furnished with a small stove, so as to be comfortable in winter. It should be provided with a work-bench and vice, a shaving-horse for using the drawing-knife, and perhaps a small foot-lathe. The two latter are convenient but not essential. The tools should be two or three planes, augers of different sizes, a few chisels, a brace-bit, drawing-knife, saw, and hammer. A small part of these will answer, and others may be added—the cost of the tools varying from five to twenty-five dollars.

Such a work-shop will afford several important advantages. The greatest is the assistance it will render the cause of *practical education.* The best inheritance any man can leave his children, is, not wealth to support them, but *the ability to help and take care of themselves.* A young man, whose natural ingenuity is so developed by practice that he can at any moment repair a rake, adjust a scythe, fit in a new hoe-handle, set a clock in running order, sow a broken harness, make a door-latch fasten easily, set a gate in good swinging condition, sharpen a pen-knife, give edge to a pair of scissors, mend an umbrella, repair a cistern-pump, whitewash a ceiling, paper a room, stop a leaky roof, make a bee-hive, bottom a chair, and black his own boots, will pass through the world more comfortably to himself, and profitably to those around him, and be far more worthy of the hand of the finest young woman in the country, than the idle and sluggish pretended gentleman, with pockets full of cash earned by his father, and who is obliged to send for a mechanic for all these things, which he is too helpless to perform himself. Dr. Franklin said, "if you want a good servant, serve yourself;" and, "if you wish your business done, *go;* if not, *send;*" and these sayings apply with especial appropriateness to such as have those jobs to perform, commonly known as "odds and ends."

Another important advantage afforded by such a work-shop is its *moral* influence in furnishing pleasant employment to boys during rainy or stormy weather or other leisure hours, and lessening the temptation to frequent taverns, and to attend places of diversion—often leading to the most pernicious habits.

Another, is the actual saving of expense to the farmer, in having around him ingenious boys, who will repair immediately any broken article, and save the cost of carrying it to the neighboring village, and the delay and inconvenience, often much greater, of waiting till it is mended. They will be able also to manufacture many of the simpler wooden implements required for farm use.

To keep every part of a farm and premises in the best and neatest order, cannot be accomplished unless the owner or his sons are of ready and active hands. Those who depend on hired men to perform the innumerable little services which this condition of a farm requires, will find that these services must be connected with an amount of constant observation and thought which cannot be secured by simply paying wages. It is therefore essential to educate the young managers to use their own hands, and become habituated to hand-work and thinking together; and the various operations connected with the work-shop will be found a most important auxiliary in accomplishing this very desirable result.

Salting Hay—two Dangers Attending it.

The season of cutting and curing grasses and clover for hay being near at hand, it may be well to remind some and inform others that there are wrong as well as right ways of performing this simple operation; or, in other words, that there are errors, and dangers of of loss and damage, which ought to be avoided in the application of salt to hay. There are, probably, several who have discontinued the practice of salting their hay; some on account of the trouble and difficulty of having it done properly, which consists in applying it in small quantities to each successive layer, and some for other reasons, among which this may be one that that they now know of a better way of administering salt to their stock. Still though some may have discontinued it, there are not a few who continue to think it, what it was almost universally esteemed some years ago, a first-rate practice. To such and to all who are likely to apply salt to their hay, we submit the following suggestions.

If salt is applied in too large quantities the animals fed upon it will certainly lose in condition. When an animal is forced by long abstinence, or by its food being too highly salted, to partake of salt in quantities beyond what the natural instinct of the animal would dictate, then it becomes poisonous or injurious, and deteriorates the health and condition of an animal by undue secretions from the liver, bowels, &c. These excessive secretions rob the animal of a portion of its food, and carry off what would otherwise be converted into fat, or flesh, or milk, &c

It thus becomes a matter of considerable *practical* importance to determine what is the quantity of salt which an animal would naturally or instinctively crave during the consumption of a ton of hay. Some have recommended as much as 8 quarts of salt to each ton of hay; and very few have ever recommended any less a quantity than 4 quarts. Now it is our firm persuasion, from observations made by ourselves and others, that in the cold months no creature would crave or voluntarily eat as much as even 2 quarts of salt during the time of its consuming a ton of hay. If so, this quantity and all beyond it, would only be injurious to cattle or stock of any kind, when forced upon them with their food.

This is one of the errors or dangers which it would be well to guard against. The other consists in the practice of getting in hay in a damp or partially cured state, under the supposition or expectation that a free application of salt will preserve it from heating, moulding, or otherwise spoiling. A quantity of salt which would be effectual for this purpose would make the hay injurious, or absolutely poisonous from excess of saline matter.

Further Experience with Wolf Teeth.

Messrs. Editors—Seeing a communication in your paper concerning Wolf Teeth in horses' mouths, the writer of which relates his experience and requests others to furnish information on the subject, I therefore submit the following. Three years ago I had a valuable mare, an especial favorite, four years old, troubled with a weakness of one eye, like that described by your correspondent. I applied water, but it still continued to inflame, which inflammation threw out a white substance and also made a thick film on the eye, causing its total blindness. A person informed me of the cause, which he attributed to wolf teeth, and upon examination a small tooth was found adhering to the first grinder on the opposite side of the mouth from the affected eye. This was removed by placing the end of a piece of iron against the wolf tooth and striking the other end with a hammer. It took but a moment, and caused no pain to the animal apparently. After this operation the inflammation ceased, the film came off, and the eye was thought to be permanently cured. But in a few months the same eye showed evident signs of the old difficulty. I now thought my mare to be doomed as far as seeing was concerned, as no more wolf teeth could be found; yet I resolved to take her to a man who was skilled in cases of all kinds pertaining to horse-flesh. He pronounced the difficulty to be a "hook" in the eye. This is a fleshy substance growing upwards from the inside of the eyelid, tipped by a hard point which constantly scratches the eye-ball and causes great irritation, a film, and consequent blindness. The removal of this hook is a more difficult matter than the operation of taking out a wolf tooth. The horse must be confined by means of a strong rope halter so that the head cannot be moved. It is absolutely necessary to fasten the head in some way, as a sudden start of the horse might cause the knife of the operator to wound or ruin the eye.

In this instance, a strong rope halter was put on, and passed through a hole bored in the side of a barn, and firmly held inside by two men. A blanket or other protection should be placed between the head and barn to prevent galling the former by coming in contact with the barn. When the horse is made fast, put the finger between the hook and eye-ball, so that the hook will lie against the nail of the finger. Then, with a small keen blade, cut the hook out as near the root of it as possible. The eye thus wounded will be very sore, and should be washed with cold water often till well restored. In the case of my horse, after the hook was removed the eye soon recovered, but another hook grew, for the reason that the first one was not thoroughly taken out. The operation has been performed three times, with intervals between of from six months to a year; yet I am of the opinion that one *thorough* operation would have been sufficient. The eye, of course, after being so many times inflamed, would not be likely to regain its clearness entirely, which it has not done, still the sight is not wholly destroyed. The other eye is perfectly sound.

The last hook was removed two years ago, and there has been no indication of a renewal.

The above, Messrs. Editors, are *facts*, notwithstanding those authors who are considered the best authorities, seldom mention the *hook* disease, and then only to discard the idea of its existence. L. A. Cooke. *Colebrook, Conn.*

Stacking Hay and Grain.

In my opinion, nothing looks better around a farmer's barn, than a nice lot of well built stacks of hay or grain. When we see them, the first thought usually is, "that is a neat farmer." That stacks are much better for the grain and hay when well built, is admitted by all, though the custom of making them is so rarely practised. More than half the stacks you see put up, look as though they were going to tumble over with the first blast of wind. If the directions given below are followed, you will have a neat, prim looking stack, of no matter what size you make it.

Lay your bottom of old rails, old trees, or any such material that you may have on hand, so as it will admit of a current of air passing under it. One rail square will take twenty tons of hay, when well built. Lay on your hay to cover the bottom all round, and just sufficient to cover the outsides; in laying on the hay, keep it well shaken out, as if laid on in lumps it will slip. Then draw your bottom up four to six feet high, (according to the size you intend your stack,) in shape of a bowl; in building up to this height, you keep your centre hollow as you proceed.

You then commence to draw in, keeping as before your centre hollow and your hay well shaken out. When you come to within four or five feet of the top, commence to raise it in the centre, so that it droops from centre to edge; in this way you finish. In unloading, have your loads delivered regularly around the stack, for if unloaded more at one place than another, it will throw your stack in; the same with your ladder, keep it regularly shifted around the stack. When all is finished, have the bottom pulled from your foundation to where you commenced to draw in; this gives you a nice, regular eave all round, and prevents the rain when running down the stack from penetrating into the bottom, for the eave projecting over, throws the water completely off. Finally rope your stack with hay ropes, six or eight all regularly over it, and divided equal distances apart, fastening them under the eave by driving sticks into the stack and fastening to them. If the stick is crooked at one end so much the better. Your stack is then finished as all stacks should be. Gerald Howatt. *Sussex Co., N. J.*

Feeding Cows and Production of Milk.

Messrs. Luther Tucker & Son—The frequent calls of business must be my excuse for not having before replied to your questions published with my communication in the Co. Gent. of May 24th. You ask—"how many quarts of milk, cows of average quality will give daily, in summer as well as in winter, if they are fed with grain while in pasture, or wholly kept in the stable—and what probable increase in milk caused by feeding grain, and its increased cost?"

I will endeavor to give you a *reply*, but fear I am not able to answer your questions fully and satisfactorily. Our cows are *not* kept up in the stable in the summer season, but turned out to pasture—and are not fed with grain, while in pasture, except when we happen to have a cow that is in very low condition, and on being turned out to grass continues to fail; we then give her a little feed, say from two to four quarts of meal daily, which I have found to be very beneficial. And again, we begin to stable our cows nights, generally, about the middle of October, when the first cold nights come on, and then begin to give them some grain. We raise two or three acres of sowed corn, and begin to feed it to them in August, what they will eat once a day, and I think that a few acres of land cannot be put to a better use. Although we have never done it, I am inclined to the opinion that it would be advantageous to feed our cows a little meal all summer; of one thing, at least, I am well convinced, that the majority of farmers do not begin soon enough in the fall to feed their cows, but allow them to lie out on the cold frosty ground through the months of October and November, and to work—yes, literally to *work*—at the short, frost-killed, dried-up and eaten-up pasture lands, until their condition and quantity of milk is so reduced, that it is utterly impossible in the face of the coming winter, to bring them back either in condition or quantity of milk, to where they would have been had they had the proper care and feed.

There is one thing certain, that a cow either starved or frozen will not give milk; and when the two are combined, the result can be better imagined than described.

Your first inquiry is one to which it is difficult to give a direct answer; it is like many other questions in agriculture, dependant very much on the attending circumstances; for instance, whether or not they are cows of good quality for milk; whether farrow or in calf; large or small sized; been milked a long time or fresh; state of the pasture, also the season, whether wet or dry, and the cows, whether well or badly kept, and I may add, well or badly milked. The extremes, I should state, according to the best of my knowledge, at from 8 or 10 to 14 quarts per day to each cow, in an ordinary sized dairy in summer, and in winter from 6 and 7 to 12 quarts per day—10 quarts I believe being considered a fair average quantity in summer, and eight quarts in winter.

These figures may seem low to many who are only in the habit of seeing statements of single cows in the papers that give 20 or 30 quarts per day of milk and *froth*. A 12-quart pail full of milk, as milked from the cow, when cooled down to 50°, and measured for market, will be found not to be 12 quarts. There are individual cases in almost all dairies, that in the flush of grass do give 20 quarts and upwards of milk per day, but they are the exceptions, not the rule, as far as my experience goes.

My dairy, at the present time, averages between 12 and 13 quarts per cow—about one-half of them fresh since February; the remainder winter cows that have come in at various times since August last, and all farrow.

It is surprising to those who have not tried it *both ways*, to see what a difference there is in the quantity of milk and *personal appearance* of a cow badly kept and poorly fed, and the same cow (more particularly in winter,) when well kept, highly fed, and nicely carded. Those who try the latter plan, I think, will never return to the old system, for the best of reasons, viz., it *won't pay*. The subject grows on my hands, but as I fear the communication is already too long, I must stop. D. C. M. *Chester.*

Blood Spavin.

Messrs. Editors—I wish to know if there is any cure to a blood spavin on a horse. If you or any of your subscribers could inform me of a remedy, it would be a great kindness to one who has a valuable mare thus afflicted. A Subscriber. *North Hadley.*

We have not had experience with this disease. We would call on our correspondents who have, and in the meantime copy the following brief remarks of Dr. Dadd in his "Modern Horse Doctor."

Bog spavin is the term usually given to enlarged *mucous capsules*, or to a distended state of the subcutaneous veins in the region of the hock. In the latter case it is termed blood spavin. It will be seen, on referring to article *Spavin*, that the above abnormal state bears no resemblance to the latter; therefore the term is misapplied, and should not be made use of by any person professing veterinary knowledge. Enlarged mucous capsules in the one case, and local venous congestion in the other, are significant terms, and by them we understand the nature of the case, and also by what means they are to be treated.

The remedies for enlarged mucous capsules are, in the early stage, cold water and refrigerating lotions; in the latter stages, strong infusion of bayberry bark; and lastly, brandy and salt, perseveringly applied. Congestion may be treated in the same manner, aided by friction.

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Weight of another Colt.—Mr. Solomon Wait of this place, has a Messenger colt one year old, bright bay, with black legs, mane and tail, which we have just been measuring and weighing, and the following is the result: Weight 825 lbs.; height 14 hands and one-half inch; girth 68 inches. He is a perfect model. He is a stallion. E. M. McC. *New Castle, Pa., June 23d.*

ENTOMOLOGY

No. 15—Grasshoppers.

Scott County, Minn., June 8, 1857.

Messrs. Tucker & Son—*The* subject of all our inquiry and solicitude at this time, is Grasshoppers. I have enclosed several specimens for examination. We want to know what to expect of them for the future. The history of them here, as far as known, is that the last of August last year, full-grown grasshoppers began to appear in our fields, and in a short time there were millions. They came from the northwest. It is said that three years ago they were at the Red River of the North, about 500 miles from here. About the last of September they commenced to deposit their eggs in the ground, any where; the hard roads were covered with them. They void from 20 to 35 eggs each. This spring they have come out, and are taking away everything that is green. Some of our wheat fields are as bare as the inside of our hands. Corn, oats and beans disappeared as soon as up. From present appearances we shall not be able to grow any kind of crops. Please give us a scientific description of them as soon as convenient, through the Country Gentleman. Truly yours, C. W. Woodbury.

Answer to the above by Dr. Fitch.

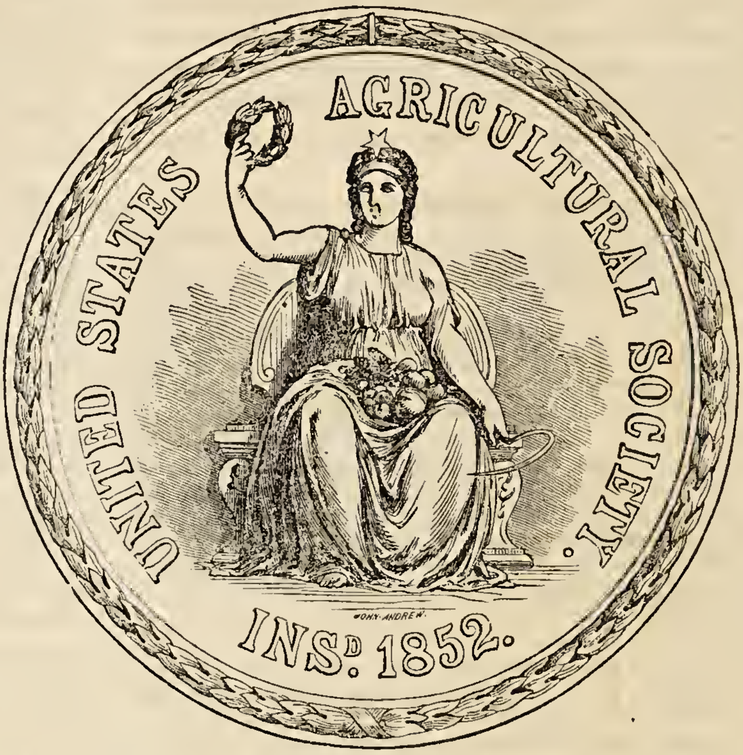
Messrs. Tucker—The intelligence from Minnesota, in the communication from Mr. Woodbury, is truly alarming. Such facts are within our knowledge as clearly show that the grasshoppers of this country are analagous, in every respect, to the migratory locust of the east, whose career in all ages has been a series of the greatest calamities which have ever befallen the human race. "We are the army of the great God, and we lay ninety and nine eggs; if the hundredth were put forth the world would be ours!" Such is the song which the Arabs say the locust sings. No aid of oriental poetry, however, is required to impress us with the pitiable condition of a country which has been invaded by these creatures—where every particle of vegetation has been devoured, and not a mouthful of sustenance is left for either man or beast; where the inhabitants are obliged to scatter themselves with haste into other countries, to avoid starvation, and the whole land, in place of its previous bright green mantle of luxuriant verdure, is changed to a dreary, dismal waste, blackened as though fire had passed over it, and solitary, save here and there a miserable being striving to dig from the earth a few roots to keep him from famishing. The history of the locust presents to us repeated instances of scenes like this. And it is only because the grasshoppers of our own country have never yet multiplied to the same extent, that we have not experienced similar calamities here. But, as I have often stated in my public lectures, we have every reason to apprehend that, as time rolls onward, instances will here occur, that will parallel what is related of the locust in the old world. And with such tidings as Mr. Woodbury's letter brings us, our strongest fears may well be excited at the prospect now before our neighbors in Minnesota. If these grasshoppers, early in June and before any of them are grown to half an inch in length, if now when they are just hatched from their eggs and are still in their feeble infancy, they are so numerous and ravenous as to consume every green thing, rendering the "wheat fields as bare as the inside of our hands," and causing "corn, oats and beans to disappear as soon as they are up," what must be the condition of things there the coming August and September, when these same insects have grown to two inches or more in length, and their voracity has increased in the same ratio with their size and strength? Unless Divine Providence interposes, by flocks of birds, by predaceous insects and other natural causes, to cut off the greater part of this pestilent race before it reaches maturity, it appears inevitable that portions of that territory will this year be devastated in a manner that will appal us, and will everywhere excite the liveliest sympathies in behalf of our unfortunate fellow citizens who are residents there. Let us congratulate ourselves that we live in an age and country where intelligence and enterprise have furnished such facilities of intercommunication, that destitution and suffering, in any district, is relieved as speedily as it becomes known; and that nothing short of such a wide-spread and universal scarcity as we have no reason to regard as being possible, can ever produce in our land such instances of famine and its attendant pestilence, as have often occurred in former ages and are still liable to occur in many parts of the world.

The specimens sent by Mr. Woodbury are too young to determine their species. They merely show that the insect is an ordinary looking grasshopper of a black color, vaguely mottled and variegated with ash-gray or dull white, which color often forms a very distinct stripe along each side of the body its whole length. We shall be much obliged to Mr. W., if, when they have acquired their wings, he will pack a few of them in dry sawdust, in a small box, and send them to Albany to us. There are many kinds of these insects in our country, and if this proves as destructive as we apprehend, we are all deeply interested in knowing which particular species it is, and over how large a district it inhabits. It is plainly different from the Red-legged grasshopper (*Acrydium femur-rubrum*) which is our most common species here in New-York; and though this is one of the smaller kinds, growing only to an inch in length, or less, it destroys an immense amount of valuable forage in seasons when it is greatly multiplied: and when it has been most numerous, it has been known to become gregarious and migratory, exactly like the locust of the east, myriads assembling together in a flock, taking wing, and appearing like a cloud when at a distance in the sky; and wherever the swarm alights for a day or two to feed and recruit, every particle of green vegetation is consumed, causing the spot to appear as though burnt over with fire. It is surprising that the most unpalatable weeds, which no other animal will eat—the bitter May-weed, the acrid Butter-cups, the nauseating Lobelia—are devoured by these insects, apparently with the same relish as plants that are most mild and fragrant.

We hasten to present the manner in which these insects are to be subdued; and we regret that before this information can reach our Minnesota friends, the most favorable time for combatting them, namely, when they are young and small, will be past.

It may be remarked that in the case of no other insect have we so much light with respect to the best modes of conquering and quelling it, as here, where in the case of the locust, the attention not merely of individuals, but of the governments of many different nations since the earliest periods of time, has been directed to this very subject. And the only mode which long and ample experience has shown to be efficacious and reliable for subduing these creatures, is simply gathering and destroying their eggs before they have hatched, and capturing and killing the insects when they are young. And so important and indispensable is this work known to be in those countries which the locust inhabits, that to excite the inhabitants to engage in it with sufficient zeal and energy, bounties are paid from the public treasury for gathering these eggs and insects at a specified period of the year. In seasons when they are so numerous that quantities of them can be readily obtained, these bounties render it an object for the whole population to lay aside their other employments and engage entirely in this business. I regret that I have mislaid a memorandum stating the immense number of locusts that were hereby destroyed in the vicinity of Smyrna a few years since. The gov-

The United States Agricultural Society's New Medal.


UNITED STATES AGRICULTURAL SOCIETY.
INSD. 1852.
JOHN ANDREW

We present herewith an engraving of the Medal just struck for the Trial of Implements, to be reproduced in Gold, Silver and Bronze.

"DESCRIPTION—FACE.—On the face is Ceres, (Goddess of the Earth, Patroness of Agriculture,) seated upon a throne. In her right hand, which is elevated and extended forward in an attitude of invitation, she holds a wreath of honor; in her left the sickle—emblem of agricultural industry. In her lap are gathered various fruits. Her brow is crowned with the star of Empire, and her expressive countenance manifests her dignified rank as the impartial disposer of awards to the competitors. Around the rim of the medal is the classic wreath of laurel, and within this are the words, in Roman letters, "UNITED STATES AGRICULTURAL SOCIETY—MDCCCLII."

"REVERSE—The reverse side is ornamented simply with a wreath of plants, the productions of the grand divisions of the United States, emblematic of the National character of the Society. On one side are the Sugar Cane and Cotton Plant, on the other the Indian Corn and Wheat, and, at the bottom, uniting the two, is a grape vine laden with fruit and leaves. Thus the great staples of the South, North, West and East, are wreathed together, encircling a space appropriated for inscribing the name of the successful competitor."

Care of Trees.

There are certain bad practices, which have been pursued at least as long as the memory of the "oldest inhabitant," which we have tried many times to correct with only partial success, but which are still followed by the larger portion of those who plant trees. One of these practices may be simply described as *total neglect.*

A day or two since, a man was employed to cultivate and dress a fruit garden, set out last spring, and with the space between the trees planted with potatoes. It was afterwards found that he had carefully and handsomely hoed the potatoes, but the trees, which needed special attention, he as carefully skipped. Yet, one of the trees cost as much and was worth more than all the potatoes planted on the ground.

Another man was employed to plow a young orchard, also planted with potatoes. One hill was too near the row of trees, and to save this potato plant, the seed of which was worth about half a mill currency, he allowed his team to break down and destroy the fine young tree worth more than a thousand times as much.

Our readers no doubt will recollect numberless instances where fine apple trees have been barked in plowing orchards, the great anxiety of the plowman being to give the crop a good chance, and let the trees take care of themselves.

All these facts and many others, show a general stupidity in the community, in not appreciating and giving proper care to fruit trees. Corn, turnips, cabbages, and every thing else, are carefully cultivated, but trees take the last chance, although they have cost many times more, and would with proper attention be worth by many times, all the other crops. We can account for this strange practice only on the principle that men generally, unwilling to think for themselves, prefer to follow the multitude into error, like the flock of sheep that all jumped over the fence into the well and were drowned, because a single leader happened to do so first: or for the same reason that they become accustomed to delight themselves to hear of a thousand persons tortured and killed on a battle field, while the whole community is shocked beyond measure by a single murder in Bond street, New-York. In other words, men think according to general custom, and not according to truth and reason. This accounts for the neglected trees.

We make these remarks at the present season, to induce those who carefully set out trees last spring, with all the necessary attention, to give them continued culture through the summer, and at a time when they are most apt to be neglected. It is during the most rapid period of growth, that disturbing causes, such as a hard soil, an unbroken crust, and the exhausting and checking influences of weeds and grass, exert the most detrimental effect.

We intend to resume this subject on an early future occasion, with more detail as to proper management, and in the mean time recommend every one who would be successful with young trees, to give them not only as much attention as onions and cabbages receive, but a great deal more, in the shape of a wide, thoroughly mellowed surface about them, because they are of more value. We have often spoken on this subject, and we fear we shall have to many times more, before a thorough reformation is effected.

Plans of Houses.

We have selected and re-drawn the following plans, from among a number of sketches furnished by our correspondents. These plans combine several conveniences, and they may afford useful suggestions to those about to build, and who cannot secure the services of a professed and skillful architect. The plans are all of the first floor, being mostly, as we suppose, intended for story-and-a-half houses, the second floor of which may be easily arranged from the divisions of the first.

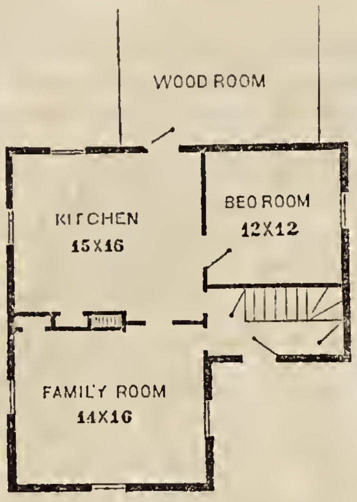


Fig. 1.

Fig. 1 is a plan of a small and cheap house, furnished by J. E. Sanborn, of Barre, Mass., and which, as he remarks, is "adapted to the use of a poor man, who can afford only a small one."

Fig. 2, is of rather larger size, from S. S. Dexter, of Orange, Mass., who states that it is a plan of a cheap house just erected at that place. Both of these plans explain themselves.

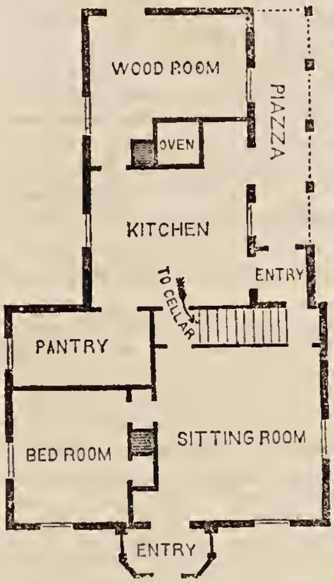


Fig. 2.

Fig. 3, is another from J. E. Sanborn, arranged for its "compactness and convenience. The kitchen may be struck off, or used as a wood-room, and the bed-room as a kitchen and the library as a bed-room."

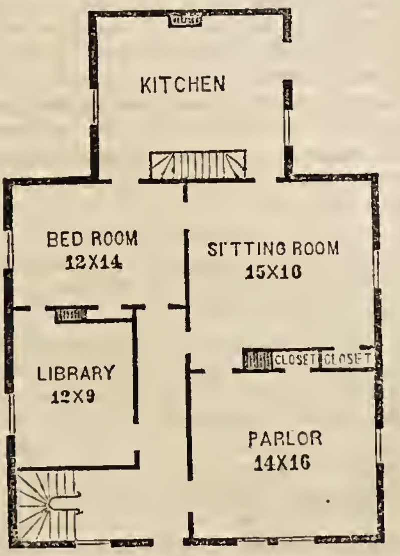


Fig. 3.

This plan has much to recommend it, on account of its neat and compact form, but a serious inconvenience will be felt by the family which occupies it, before the end of the first year, by the want of a *pantry*,—the small closet opening to the dining-room, and the imperfect space under the kitchen stairs, being quite insufficient for such a dwelling.

Philip Ritz, of Corvallis, Benton Co , Oregon, writes us as follows:

"Having noticed a plan for a small house in the Cultivator for Dec , 1856, I will give you the plan of a house I built last summer. It is much the same as the plan in the Cultivator with the addition of two small rooms, namely: a bathing room and pantry, which I am satisfied can be added to the first plan without increasing the cost over $15.00, as it takes no more outside wall to enclose the building with these two rooms than without them, and two angles less.

In maturing a plan, I kept steadily several objects in view. First, how many rooms and what size a small family would need; and secondly, what form I should build on to get the greatest amount of room for a certain expense, and in the most compact form. I was satisfied the nearer square I could build, so as to give the rooms proper shape the better, as it would enclose the greatest amount of room with a certain amount of outside wall, with the least number of angles, and in the most compact form possible. My house is 27 by 33 feet, one story 10 feet high, with steep roof, so that I have two good bed chambers on the second floor 14 by 16½ each. On the lower floor there are 7 rooms, 2 small halls, 1 closet, and 1 wardrobe under the stairs, opening into family bed room, and two fire-places. Had I plenty of money to spare I would have had all the rooms larger and the story 12 feet high, but for a small family they do very well."

Fig. 4 is copied from the sketch sent, which we think a very successful attempt in arranging the apartments of a moderate sized house; the roof having no receding angles, is consequently not subject to leakages. The only material defect we observe, is, that the kitchen is lighted and aired on but one side—windows on opposite sides, like those in fig. 3, being more favorable to a pure air, and that cleanliness which is best secured by ample light. Its position, however, would make it warmer in winter; but also warmer in dog-days.

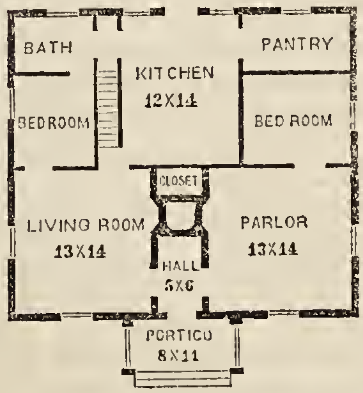


Fig. 4.

* * *

The Short-Horn Herd Book—Error in Price.—In a recent notice of the three volumes of Mr. Allen's Herd Book, the price of the 2d and 3d should have been $6, *instead of* $5 *each*. The price of the set is thus $15, and they can be had by sending the same to the office of the Co. Gent.

ernment of France, it is well known, is in advance of every other in the sedulous attention which it gives to every subject of this kind, in which the public welfare is in any degree involved. And though the locust is not a common insect there, yet a bounty is paid to promote the destruction of all insects of the grasshopper kind. A thousand dollars are some years disbursed in this way in some single counties (departments) bordering on the Mediterranean, where the insects are most numerous—about four cents per pound being allowed for the eggs and half as much for the insects. The chase begins with the month of May and continues through June; and the entire population of some villages, including the women and children, are accustomed each year to engage in it. An experienced boy, by hoeing in rocky places where the soil is shallow, will gather 12 to 15 pounds of eggs in a day, which hatched would produce half a million of locusts and over. To capture the insects, four persons drag a large piece of stout cloth briskly across a field, two in front drawing the fore edge along upon the grass and two behind holding the hind part of the cloth slanting upwards at an angle of about 45 degrees. The cloth we presume is made stiff by slender poles, sewed, one in its front and another in its hind edge, for we cannot conceive how it could be readily managed otherwise, especially upon a windy day. The insects jumping up from the grass to escape, are caught upon this cloth, and when a quantity are gathered, it is folded over them and they are then brushed or shaken into a sack. The women work singly, with a net similar to that used by entomologists for sweeping the grass and weeds to collect the small insects therefrom; and they sometimes gather herewith more than a hundred weight in a day. This information we obtain from an article in the Transactions of the Entomological Society of France, vol. ii, p. 486.

The Chinese, also, secluded from intercourse with all the rest of the world, have learned that this same method was the only effective one for subduing these insects, as appears from "an edict for the capture of grasshoppers," issued by some of the officials to their subordinates, which we meet with in Williams's Middle Kingdom, vol. i, p. 272. In this it is stated, "We now exhibit in order the most important rules for catching grasshoppers. Let the governor's combined (military) forces be immediately instructed to capture them; at the same time let orders be issued for the villagers and farmers at once to assemble and take them, thus without fail sweeping them clean away. If you do not exert yourself to catch the grasshoppers, your guilt will be very great. Let it be done carefully, not clandestinely delaying, thus causing misfortune to come upon yourselves. * * * When the wings and legs of the grasshoppers are taken off and they are dried in the sun, they taste like dried prawns, and moreover they can be kept a long time without spoiling." But we have not space for further extracts from this curious document.

From what has been adduced, our Minnesota neighbors will perceive that the only feasible mode by which they can rid themselves of these insects, is, to capture and destroy them. Their numbers, however, are undoubtedly so vast that to make any perceptible impression upon them, the combined exertions of the whole population will be necessary—such a concert as can scarcely be obtained, except by some legislative enactment. A single person, however, can probably sweep most of these insects from his own fields, with less labor than is often bestowed upon objects of less importance than this is. A net which will be very effective for this purpose may be constructed as follows: Make a bag of stout cotton cloth, somewhat tapering, and about three feet in length and eighteen inches in diameter at its mouth. Sew the mouth of this bag to a coarse stiff wire, bent into a circle of the same diameter, to which a handle about three feet long is firmly attached. Sweep fields of grain or grass with this implement, by swinging it from side to side in front of you, as you advance, like a man engaged in mowing. A little practice will render one dextrous in using this net; and every person will be astonished at the confused medley of grasshoppers, flies, beetles, and all sorts of queer looking bugs, worms and creeping things, which in some places will be gathered by it. As most of these are depredators upon the vegetation on which they occur, they may all be emptied together into a sack, and killed by pouring boiling water upon them, and fed to the swine. How effective such an implement is for work of this kind is shown by the fact stated above, that the women in France sometimes gather a hundred weight of grasshoppers in a day with it. The same work, however, can be much more expediticusly accomplished, no doubt, with two or three sheets sewed together, or a piece of canvass of similar size, managed by three or four persons in the manner above spoken of, as practiced in France. In one or the other of these ways a field may be almost entirely cleansed of these vermin, by passing over it two or three times. And if the crop can be saved from ruin hereby, it is evident that it will amply repay the labor which is thus bestowed. But where the whole country around is thronged and overrun with these insects, it is probable they will soon come in from the surroundfields and reoccupy any spot which is made vacant; in which case repeated sweepings may become necessary.

As I close this communication, the rain is pouring down copiously, which reminds me of the fact that these insects are supposed to thrive the best and become most destructive in dry seasons. Therefore if the summer proves to be as wet in Minnesota as it has been and promises yet to be in this vicinity, it may in a great measure avert the calamity which appears to be there impending. ASA FITCH. *June 30th*, 1857.

Sugar and Shade.

EDS. CULT. AND CO. GENT.—As, in consequence of the high price of sugar and molasses during the last year, many people have been stimulated to multiply the means of increasing the supplies of these necessaries of human subsistance by manufacturing larger quantities than usual, from the maple, and by introducing the sorghum for that purpose—the idea has occurred to me to suggest that in clearing up our northern and western forests, the maple should be left as much as possible for sugar camps, shade, &c. And further, where it has not been planted by the hand of nature, that it should be planted by the hand of man; for no tree is more clean or beautiful—better adapted to the yard or lawn.

But says one, "we have not the ground to spare for growing maples, and more than that, it takes them so long to grow that we should not live to reap the reward of our labor;" to which I would respond we have the ground to spare, and that too, of the best quality for the purpose—the space about our houses. I transplanted a maple tree into my yard from the woods, about twenty years ago, when it was one inch in diameter—it is now more than three feet in circumference. If I had planted a dozen then, instead of only one, I might, long ere this, have had plenty of excellent sugar and delicious syrup for domestic use, without money and without price, as they had at my father's when I was a boy, from the majestic trees which grew spontaneously about our dwelling, but which, I am sorry to say, have all been cut down long since, and the present proprietor is exposed to the scorching rays of the summer's sun, in the absence of trees of any kind to supply their place. ISAAC CHILD. *Indian Spring Farm, Pa.*

☞ We learn that Mr. S. P. CHAPMAN has recently added to his herd of Short-Horns, by purchase from Mr. THORNE, "Victorine" and "Gazelle," the latter sired by Mr. Booth's "Monk."

The Cultivation of the Cabbage.

Eds. Co. Gent.—There are few vegetables more extensively used or more generally esteemed than well-grown cabbages; and a few hints on their culture, which, if properly carried out, cannot fail to ensure success, may not prove unacceptable to many of your readers.

As regards sorts, the following are all that can be wished for:—Paragon and Barnes' Early Dwarf are the earliest; Enfield-market, Cattell's Reliance, and Mitchell's Prince Albert are not to be excelled in delicacy.

For the sowing of seed, I commence the first week in May. The soil for this purpose must be light and fine, and well manured at the depth of two or three inches, and top dressed with Peruvian guano previous to sowing. The quantity of seed required for a perch is two ounces, and guano three pounds. From the time the plants first appear, till they have rough or second leaves, they cause anxiety, and give much trouble to the grower, in consequence of that pest, the black-beetle-fly (*haltica nemorum*). Should the maiden leaf be attacked severely by this insect, it will be requisite to sow again; otherwise the plants will be stunted, and too long a time will elapse before they will be fit to put out. My object is quick growth, this being the great essential for a fine cabbage, and this I can ensure in the average of Jersey summers, by having them fully grown in 14 weeks from the time of sowing the seed. The best preventive to the fly is soot, sown on the young plants as soon as they make their appearance above ground, whilst moist with the morning dew, and after every shower, as the soot will be washed off the plants, or the fly will be at them again, particularly if sunny weather intervene.

After rearing the plants, the next step is to prepare the ground for their reception. The Cabbage delights in a rich, fresh, and rather stiff loam; but this is not of so much importance, provided there is a greater quantity of manure added to supply the organic matter and mineral substances taken away by previous crops. The dressing I give my land per English acre, from which I get two and in some places three scouring crops in a year, is 30 tons of stable manure, if possible from oat-fed horses, this being the richest, and 5 cwt. of salt, dug in with the manure; afterwards top-dressed with 4 cwt. of Peruvian guano, well harrowed in the surface previous to planting. The distance apart for Barnes' Early Dwarf and Paragon is 18 by 20 inches; for Enfield-market and other sorts named, 20 by 24 inches. This I find amply sufficient; but, should they be grown for the purpose of exhibition a greater space can be allowed.

Some growers make use of liquid manure for this crop while growing; but I do not approve of it, not only on account of the difficulty of its application, but in consequence of the rankness it imparts to the cabbage.

In the course of ten days after the young plants have been put out where they are to remain, they will require to be flat-hoed, not only to destroy small weeds, but to open the pores of the earth and to facilitate rooting. This is too often neglected, and the result is a tardy growth. Too great a stress cannot be laid on this part of the subject, as the effect of a good early hoeing in the culture of the cabbage must be seen to be appreciated. In three weeks from the time of planting they will require to be horse-hoed to the depth of seven or eight inches, to be repeated if possible while there is space between. In five weeks after planting they will have attained a considerable size, which will prohibit all further culture, and every day will tell upon them, so that in seven or eight weeks after planting they will be full grown, averaging five and six lbs. weight each.

The deep cultivation they receive will counteract any ill effects of a scorching summer sun, which causes other vegetables to droop, and, if a long drought occur, become tough and rank. By the system I adopt, the cabbages will look fresh and green under the hottest rays of the sun, and the earth will remain moist and cool.

If it is desired to grow cabbages at all seasons, the following table will be a guide as to the time of sowing, and the month in which they arrive at maturity, in a climate like Jersey:—

TIME OF SOWING.	TIME OF HEADING.
1st, till 15th May.	August, in use till Oct.
1st, till 15th June.	October, " December.
1st, till 7th July.	December, " March.
15th, till 30th July.	March, " May.
15th, till 30th August.	

By retarding the growth of these last sown, and planting in April, they will fill up the months of June, July and August.

Barnes's Early Dwarf and Cattel's Reliance do not run to seed if sown in Jersey after the 15th July, nor will any of the other sorts named run, if sown at that period in a colder climate, but in warm early situations it is necessary to sow later.

Some growers earth or mould up their cabbages. I do not see the utility of it, and therefore never practice it, as I find that it has a tendency to prevent their hearting so soon. Earthing up is only required for the kale and brocoli tribe, having long stems and heavy foliage. Long-stemmed cabbages require more time to grow, and the cause is, almost always, shade and bad cultivation. James Levesque, Jr., Market Gardener, *Island of Jersey*, *England*.

Cranberries from Seed.

To raise cranberry plants from seed, select the largest and best berries to be had—mash them in water—turn off the water and pulp, and the seed will be found settled at the bottom.

Sow in fine sand, in a moist location, or if on a small scale, in pots. Water every third day, and in a few days the plants will make their appearance, coming up like the bean, bringing the seed with them. This plan cannot be recommended except to produce new varieties. I have now many plants growing finely from seed saved as above last fall, and kept dry until the 2nd of April, when they were sown in pots and kept within doors except during rain.

The potato may be raised in the same way from the seed-balls, and will give about the same results—two or three good varieties to about fifteen hundred worthless. D. L. Halsey. *Victory*, *N. Y.*

Cure for Warts on Animals.

Messrs. Editors—I noticed an inquiry in The Cultivator for a cure for a wart on the ankle of a fine mare. I will give a simple and easy cure: Take new quick lime—slake and scatter over, and as far under the wart as you can, and the wart will come off in a very few days, and be well. L. L. Merril. *Homer*, *N. Y.*

N. B.—I would like to hear from the man when his horse is well.

To Cook Sweet Corn.

Trim off the husks, and immerse in boiling water, with a little salt. Boil gently half an hour; then take out the cobs, rub over some butter, pepper, and salt, and brown before a quick fire. Another plan, and one which most persons prefer, is to boil as above; afterwards, cut off the corn neatly, return to a pan containing a sufficient quantity of milk to cover, throw in a tablespoonful of butter, the same of sugar and salt, to flavor, simmer slowly for fifteen minutes, and serve up hot.

Notes about the West.

A GENERAL VIEW—CHICAGO, ITS GROWTH AND PROSPECTS—RAILROAD FACILITIES—THE ILLINOIS CENTRAL COMPANY—THE STATE AND THE FAR WEST MADE TRIBUTARY.

To realize the force of the line,

> "Westward the star of the empire takes its way,"

as applied to our country, one must do something more than roll over "the great west" in the rail-cars. Observation in this way however extensive, is confined to a very narrow space, and that generally of the least productive and most forbidding character; and the information to be gathered in casual conversation with fellow-travellers and at the stopping places in the principal towns, is of altogether too meagre and unreliable a kind, to enable one to form any correct opinion of the agricultural capacities of Prairie Land. In spending some time at several of the chief towns, or cities as they are there uniformly called, in Illinois and Wisconsin, I had good opportunities of learning the prices of "city lots," and the perfect wildness with which the fever of speculation rages in many of them. And had I gone no further I should have returned to the East, like many others, in the full conviction that western people were verging on insanity upon the subject of "corner lots" and the value of mother earth by the "square foot,"—as indeed they really seem to be in some places—Chicago and Milwaukee for instance. It is well known that in the former, land two or three miles out of town, itself little better than a swamp, with no streets or improvements—except those on the maps, is held at higher prices than in the upper part of the city of New-York. So in Milwaukee, although rates for out-lots by no means compare with those at Chicago, yet one might suppose from the sum asked for 24 feet by 120, that land was one of the very scarcest things to be found in that vicinity.

Well informed as I was in relation to the growth and rapid extension of Chicago, as well as in regard to its commercial statistics, I must nevertheless confess to great surprise at the high prices to which real estate has been forced by the mania for speculation so prevalent for some time past. The extreme point must now have been nearly reached; and, although prices may not exceed what at some future period will become actual values, many of the vast "fortunes" supposed to have been accumulated during their present advancement, must pass away like the shadows of the morning before that day arrives. The market for speculation ere long will cease, and the demand will then be limited to the areas successively needed for purposes of improvement—to supply the requirements of the growing commerce and population of the city. The necessities of speculators can but compel them, so soon as this change shall occur, to sacrifices that will inevitably reduce, for a time at least, the valuation of most, if not all that large territory lying away from compact business localities, and now bartered and deeded at figures on which its owners are considered millionaires.

But, on the other hand, the prospects of Chicago—although she may experience times of depression and re-action,—from her position as the entre-pot and outlet of the incalculable riches developing with such wonderful rapidity in the vast tributary regions of the prairies, can hardly fail to justify even the highest expectations, nor should we be surprised to see her rank at no very distant time, as the SECOND CITY OF THE REPUBLIC. To say that she is already the largest grain exporting mart of the world, is only to mention the beginning of that immense trade which must result from the further and better cultivation of the lands of Illinois and the far west. As yet, but the first steps as it were, have been taken in opening up this almost boundless extent of fertile soil to a productive population, the fruits of whose agricultural and mechanical labor is all of it to find a market and outlet, and whose vast consumption is in turn to be supplied through the warehouses, by the vessels, and over the railroads of Chicago.

The ease and cheapness with which the prairies are brought under cultivation, and the facilities both for marketing their products and procuring supplies for the new settler, over the perfect network of rails with which the State is laid, are such as to render the prospective increase in the yield of Indian corn and other grain, and in the "manufacture" of beef and pork, almost inconceivable both in extent and rapidity, except to those who have been careful witnesses of the progress made during the past ten or twelve years. Could actual settlers have obtained the lands at government prices, there can be little doubt that the population and wealth of Illinois, would now have been nearly or quite double what they are. The credit given by owners, and the comparatively moderate prices at which many are willing to sell—from $5 to $15 per acre—nevertheless offer sufficient inducements to those who prefer to pay for railroad privileges rather than go beyond them to buy cheaper, and are leading to a wonderfully rapid filling up of the unbroken lands both of this State and of Wisconsin. The immense advertising on the part of the Illinois Central R. R. Company, and the favorable terms on which its territory is offered, have manifested a far-seeing sagacity and a spirit of enterprise unusual in a corporation, and have been more effective in attracting public attention to the whole State, than perhaps any other single cause that has operated towards its present prosperity. Not only has this company availed itself of the circulation of nearly every paper of repute, by liberal advertisements, but its handbills in diverse languages have been sown broadcast wherever a railroad could carry them, with an energy and profuseness, now yielding a harvest, both to the stockholders and the State, almost inestimable in extent.

It is not only in Illinois that every acre brought under the plow must aid in swelling the revenue of Chicago merchants and shippers, but the long trains of emigrants constantly pressing on for the still unsold government lands of Iowa and Minnesota, will all of them in a greater or less degree contribute to its enlargement and join in multiplying its business and riches. It must be their head market and chief depot of supplies, and every inch of railroad graded, and every furrow of new earth opened in these States, must add their production and traffic to the increasing streams that now center here. With all this to look forward to, it is difficult to condemn the extravagant expectations in which so many have indulged, and if we are to expect a revulsion, it is one which can only in the end establish upon a firmer basis the true progress and growth of the city. It will have much to conquer in the natural infelicities of its location. The expenses of filling it up to a grade that will admit of drainage, must bear heavily upon property at present unproductive, the owners of which will find themselves heavily taxed for its improvement, and it must be something of a burden even in the streets now most closely and handsomely built.

* * *

THE CROP OF STRAWBERRIES this year appears generally to be an unusually full one. New Jersey farmers are beginning to pay more attention to their production for the New-York market. The Journal of Commerce states that during a part of last week and the week before—we do not know for how long a period—five steamers running from South Jersey, daily brought an average of 1,800 barrels to the city, while enough arrived in addition by rail to swell the aggregate receipts to 3,000 barrels, each containing about 200 baskets, which sold at 3½ cts.,—making a daily expenditure by the metropolitans of some $21,000, for the one item of this little fruit.

Trials of Reapers and Mowers.

By the Maryland State Ag. Society.

Messrs. Editors—In addition to those who had previously crossed our magnificent Bay for the purpose of being present on the interesting occasion, a large company left this city on the evening of the 6th for Chestertown, to witness the long expected trial of harvesting machines, to take place near that town on the 7th and 8th July.

The field of trial was, for the greater part, very nearly level, surrounded on two sides by trees, and sloping gently toward the north. Lanes had been cut with the ordinary cradle, so that each acre was clearly defined as upon the plat, and no impediment was in the way of a simultaneous movement of every reaper on the ground, had it been desired. The whole had been laid out carefully by a competent surveyor. The following were the entries made, and the names of the parties making them, for the premiums for reapers, and for reapers and mowers combined.

1. R. Sinclair, Jr., & Co., of Baltimore, entered Ketchum's Combined Reaper and Mower.
2. Rogers & Boyer's of Philadelphia—their Reaper and Mower called "The Union"—(an improvement on R. L. Allen's machine.)
3. R. L. Allen of New-York—his "R. L. Allen's Patent," cutting five feet, and "R. L. Allen's Patent," cutting six feet.
4. Thomas Norris of Baltimore. Manny's Patent with Wood's Improvement.
5. O. Hussey of Baltimore. "Hussey's Patent," cutting 5 feet, and "Hussey's Patent," cutting 10 feet swath.
6. Owen Dorsey of Howard Co., Md. Dorsey's Patent Self Raker.
7. E. A. Greenough of Baltimore. "Wright's Atkin's Self Raker."
8. W. & W. Armstrong of Dennisville, Chester Co., Pa. Ketchum's Patent with Hull's Improvement.
9. Wm. Johnson & Co., of Newark, Delaware. Manny's Patent with Johnson's Improvement.
10. Mobley & Keiser of Hagerstown, entered their machine, but it had been so much injured by careless and rough handling in landing from the boat, that when brought upon the ground the cutter-bar was found in such a condition that it could not be worked, and it was withdrawn.
11. B. F. Ray of Baltimore. Ray's Patent.

Mr. Hussey had a raker and Mower with self-raking attachment, upon the ground; but owing to some oversight of his assistants, there had been an improper construction of one of its important parts, and it was not entered. This is the more to be regretted because the machine promised so well in appearance, and much anxiety was shown to see it in operation.

There were therefore 14 reapers, and Reapers and Mowers combined, upon the ground, though of these only thirteen entered into competition. The same machines were entered as Reapers and Mowers combined, as Reapers simply, and as Mowers simply. Besides the above there was the entry of the "Ball's Patent Ohio Mower," as a Mower only, by Saxton & Raff, of Canton, Ohio.

The weather was quite warm, and but a very slight wind was blowing—not enough to call into special notice the peculiar advantages of the reels. Only two machines were allowed to be in motion at the same time, that the judges' attention might not be distracted, and every machine was carefully tested by one of the judges with a dynamometer. Nearly the whole of the 7th was occupied in trials of the Reapers, though many of the Mowers were tried on that day at a late hour in the afternoon. On the 8th the trials were completed. The following were the premiums as offered by the Maryland State Ag. Society, and awarded by the judges, after a most careful and laborious examination of the different machines, and a dispassionate interchange of opinions respecting each.

For the best Reaper and Mower combined, $100—to Manny's Patent with Wood's Improvement.
For the best Reaper with Self-raking attachment, $75—to Owen Dorsey's Patent.
For the best Reaper, $50—to R. L. Allen's Patent.
For the best Mower, $50—to Manny's Patent with Johnson's Improvement.

The following Discretionary Premiums were awarded:

To Ketchum's Combined Reaper and Mower, $50.
To Hussey's Reaper of 10 feet cut, $50.

There were but two entries of machines for gleaning and raking: The Wire Spring-tooth Gleaner, by R. Sinclair & Co., to which was awarded the premium of $20, and Dulany's Independent Rake, by J. Atlee of Carroll Co., Md.

Several of the machines, particularly as Mowers, were so nearly upon a par in excellence, that the judges found some difficulty in coming to a decision. The "Ball's Patent" from Ohio, was particularly admired for the precision with which it performed its work, the comparatively slight side draught, owing to the two wheels of equal peripheries on each side of the driver's seat, and the ingenious arrangement by which, by the simple operation of backing, it was thrown out of gear. It seemed to me, however, to show a disposition to clog.

By the Ohio State Board of Agriculture.

A trial of Mowing and Reaping Machines, we believe under the direction of the Ohio State Board of Agriculture, was held at Hamilton in that State on the 1st and 2d of July, for the particulars of which we are indebted to a correspondent who was present during the trial. There were entered for trial, 17 mowers, 16 reapers, and 13 combined mowers and reapers. The mowing machines, tested by the dynamometer, showed the following results:—

	LBS. DRAFT.	WIDTH SWATH.
Ohio Harvester,	425	5 feet 5 inches.
Iron do.	375	5 " 8 "
Hilts' do.	325	5 " 10 "
Allen's Mower,	287	4 " 8 "
Atkin's,	325	5 " 2 "
Kirby's,	362	4 " 9 "
Whiteby's,	350	5 " 0 "
Manny's,	350	6 " 0 "
H. F. Mann's,	375	4 " 6 "
Ohio Mower,	400	4 " 8 "
Forbush's Improved,	350	4 " 9 "
Ball, Aultman & Co.,	275	4 " 8 "

The reaping machines tested by the dynamometer, showed the following results:

	LBS. DRAFT.	WIDTH SWATH.
Atkins',	275	5 feet 6 inches.
Kirby's,	200	5 " 0 "
Whiteby's,	225	6 " 0 "
do Self-Raker,	250	5 " 2 "
Manny's,	300	6 " 0 "
Hussey's,	225	5 " 0 "
Iron Harvester,	250	5 " 10 "
Ohio "	275	6 " 0 "
J. J. Mann & Son,	300	5 " 6 "
McCormick,	300	6 " 0 "
"	275	4 " 8 "
Hiltz,	225	5 " 10 "

The prizes were awarded as follows:

For Mowers—1st—$50—to Manny's Combined, entered by Baldwin, Dewitt & Co. Cleveland—2d—$30—to Ohio Mower, entered by E. Ball, Canton.

Reapers—1st—$50—to Atkin's Self-Raking, entered by R. Dutton, Dayton, O.—2d—$30—to Ohio Harvester, entered by Warder, Brokaw & Child, Springfield, O.

Combined Mowers and Reapers—1st—$50—to Manny's—2d—$30—to Iron Harvester, entered by Long, Black & Allstutter, Hamilton, O.

By the Skaneatelas Farmer's Club.

This interesting event, under the auspices of the *Farmers' Club*, came off on Tuesday, the 30th ult. The number of machines was seven. The ground having been spaced off, the owners or agents of the machines drew for numbers to correspond with the allotments for each cut. Accordingly

C. S. Underhill, "Manny & Wood combined," drew No. 1
W. J. Townsend, "Kirby," " No. 2

Baldwin & Co., "Ketcham,"	"	No. 3
T. P. Rhoades. "Burrall,"	"	No. 4
W. P. Giles, "Wheeler,"	"	No. 5
C. Moses, "Danford,"	"	No. 6
A. T. Sherwood, "Forbush,"	"	No. 7

The rules to be observed by the judges in deciding were explicit, but definite, viz: Durability, simplicity of construction, ease of draft, execution of work. Time was not to be a criterion.

The judges reported concisely as follows: "We consider *Manny & Wood's* machine best for execution of work and of light draft. *Ketcham's* for strength and durability; lightness of draft and execution of work next best. *Burrall's* for simplicity of machinery and light draft next. *Danford's* for ease of draft and no liability to clogg, and consider it a good machine." Henry Ellery, Squire M. Brown, Russell Frost, judges.

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United States Agricultural Society.

TRIAL OF MOWERS AND REAPERS AT SYRACUSE.

We have already given a brief notice of the preparations for this trial. It commenced on the 14th, most of the 13th being occupied in receiving and entering the machines, and arranging them upon the show grounds. The number actually presented was much smaller than the original notices, (about one-half,) many no doubt fearing the formidable competition in prospect, and the rigid trial to which they were to be subjected; and others being delayed upon their route to the place of trial.

As heretofore mentioned in our columns, Mr. Joseph E. Holmes of Ohio, occupied the post of Superintendent. The Board of Judges was composed of the following gentlemen:

JOHN STANTON GOULD, Col. Co., N. Y., Chairman.
Seth Scammon, Maine.
Sanford Howard, Mass.
T. S. Gold, Connecticut.
Geo. Hartshorne, N. J.
Francis P. Blair, Md.
J. L. Darlington, Penn.
W. A. Gill, Ohio.
H. K. Burgwyn, N. C.
Wm. Duane Wilson, Iowa.
Brooks Shattuck, N. H.
Elisha R. Potter, R. I.
John J. Thomas, N. Y.
John Jones, Delaware.
Frederick Watts, Penn.
Gen. J. T. Worthington, O.
Horace Capron, Illinois.
L. Wooster, Wisconsin.

Of those named we understood that Mr. Blair took no active part, although he was present and viewed the scene with much interest. Mr. Watts was unfortunately called away early in the week, and one or two of the other gentlemen were delayed a few days in arriving. With these exceptions, the above list represents the exact constitution of the committee, who went to work with a full determination to spend all the time and exert every effort, necessary to secure a careful impartial, and as far as possible, an exact comparative estimate of the mechanical merits and practical working of the different machines submitted to them. Their duties were laborious, and in some respects of a delicate kind, but the results ensuing must be of proportionate value, and we think more accurate and reliable than on any previous occasion of the kind in this country.

Among visitors present were officers of the Society, and many others from different parts of the Union, more or less widely known as public men, or from large personal interest in agricultural matters. Among them we remember the names of Gov. Morehead, Messrs. Mallory, O'Bannon, Brent, and others of Kentucky; Govs. King and Clark, Preston King, Henry Wager, Judge Cheever, &c., of this State; B. B. French of Washington; Speaker Banks of Massachusetts; John D. Lang, Maine; Hon. F. Smith, New Hampshire; R. R. Bridges, North Carolina; Mr. Alston, California; Martin Goldsborough, Maryland, and many others. The press was quite largely represented: Horace Greely, J. Watson Webb, from New-York, Col. Whitely, H. P. Byram, and others from Louisville, Mr. Wilson of the Iowa Farmer, Mr. Gold of the Homestead, Mr. Vick of the Rural N. Yorker, and many correspondents of other papers, were actively occupied, some of them on the Board.

The trial was opened at the grounds on the morning of the 14th by an excellent and practical address from President Wilder, on the general objects of the Society, its determination to try all implements and machines in the field, before deciding on their merits, and on the aims and objects of the present trial. He was followed by Governor King of New-York, and Governor Morehead of Kentucky, whose spirited remarks were highly commendatory of agriculture and agriculturists, and congratulatory to the officers of the United States Agricultural Society.

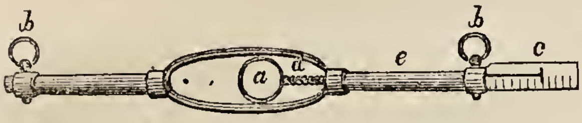
In the afternoon, the mowers, nineteen in number, the exhibitors, officers, and the public, proceeded to a clover lot of about 25 acres, where they were arranged in line, and at a signal all started in operation. The following list comprises these machines, in the order in which they had drawn:

1. D. M. Osborne, Buffalo, mower.
2. Seymour & Morgan, Brockport, N. Y., combined machine.
3. Miller, Wingate & Co., Louisville, Ky., combined machine.
4. Warder, Brockaw & Child, Springfield, Ohio, combined mower.
5. Ball, Aultman & Co., Canton, Ohio, mower.
6. T. R. Hussey, Auburn, N. Y., combined machine.
7. M. Hallenbeck, Albany, mower.
8. Hull & Sanford, Poughkeepsie, N. Y., combined machine.
9. W. A. Wood, Hoosick Falls, N. Y., mower.
10. W. F. Ketchum, Buffalo, mower.
11. T. D. Burrall, Geneva, N. Y., combined machine.
12. Pells Manny, Freeport, Ill., mower.
13. Ball, Aultman & Co., mower.
14. W. A. Wood, Hoosick Falls, N. Y., combined machine.
15. A. H. Caryle, Boston, Mass., mower.
16. W. H. Hovey, Springfield, Mass., mower.
17. Rufus Dutton, Dayton, Ohio, combined machine.
18. R. L. Allen, New-York, mower.
19. Pruyn & Lansing, Albany, N. Y., mower.

This field was a severe test; the clover in many places was badly lodged, the field had not been picked of the stones, which had been but slightly rolled into the soil, and as a consequence, much of the work was imperfect. Many owners of machines were unwilling to run within five or six inches of the ground, fearing the stones, and as a consequence not one half of the machines performed really satisfactory work. The hurry and excitement of many of the drivers also produced a great deal of bad mowing. Much interest was however evinced in this preliminary exhibition, which was witnessed by about 2,500 persons, a large portion of whom were the most intelligent and enterprising of our agricultural community, and many eminently distinguished farmers from our own and other States of the Union. So large a number of experienced machinists and skillful inventors, was probably never before collected together on a similar occasion.

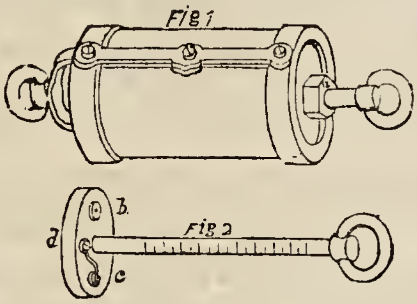
On the next day, the 15th, a further trial of about twenty-five mowing machines* was made on another meadow of thirty-five acres, consisting chiefly of timothy grass, and with the exception of inequalities and furrows, quite favorable for the successful performance of the work. Only four machines were permitted to operate at once, in order to allow the committees full opportunity for examination. A few of the machines performed admirably; many of them did good work, and a few cut very badly. This trial consumed the entire day, and gave the public a good opportunity for drawing their conclusions as to the merits of each mower; and the committee were enabled to examine the many points connected with the general working of each, and the quality of the work.

The great importance of measuring with absolute accuracy the force required for working the mowers and reapers, and the discordant and contradictory results obtained at other trials in different States, induced the committee to make great efforts to secure dynamometers whose accuracy could not be disputed. A simple and admirable instrument, very successfully used for showing the amount of side draught, is shown in the annexed cut. It is simply a neck-yoke, with a spring and index attached. The tongue or pole of the machine is inserted in the ring *a*; *b b* are the rings for the reception of the breast-straps. Any amount of side-draught is shown at once by the scale and index *c*, connected with the spiral spring *d*, through the iron tube *e*, (which is simply a piece of gas-pipe.) This instrument was constructed by J. E. Holmes, of New ·rk, Ohio, and now first used for this purpose. Some owners of machines, who had previously regarded them as perfect in this particular, were much surprised at the amount of side-draught which this simple instrument demonstrated.



Dynamometer for Testing Side Draft.

A dynamometer for measuring the draught, of very ingenious construction, giving with absolute accuracy the *whole amount* of the force expended in a given time and distance, was employed for this purpose, but from some imperfection in its manufacture, it became necessary to throw it aside. The instrument invented by H. L. Emery, consisting of a perforated piston in a cylinder filled with oil, and which had been thoroughly tested, was then used for the remainder of the trial, and proved fully reliable and equal to every purpose desired. The experiments with the dynamometer, which were conducted with extreme care, occupied the latter half of the week. The results of these experiments, which were not made public, are mentioned as exceedingly interesting, and as in some respects quite unexpected to makers of machines. By the breaking of the dynamometer referred to above, and from a delay in laying off the field of rye for the Reapers, most of one day was lost.



Emery's Dynamometer.

The following is the most perfect list we were able to obtain of the Reapers ready for work Friday morning They were tried on a field of Rye a part of which was up and down hill, rendering the task rather difficult, although the execution was generally good.

1. Pells Manny, Freeport, Ill., combined.
2. T. D. Burrall. Geneva, combined.
3. R. L. Howard, Buffalo, Ketchum's combined.
4. Miller, Wingate & Co, Louisville, Kentucky Harvester.
5. Seymour & Morgan, Brockport, N. Y., Reaper.
6. T. R. Hussey, Auburn, combined.
7. Warder, Brockaw & Child, do.
8. D. M. Osborne, Buffalo, do.
9. Hull & Sanford, Poughkeepsie, combined.
10. R. Dutton, Dayton, Ohio, do.
11. Grainger & Willson, Texas.
12. W. A. Wood, Hoosick Falls, combined.
13. Pells Manny, Reaper.
14. McCormick's Reaper, and combined Mower and Reaper.

Each of these cut something over an acre, and on Saturday, with several additions and withdrawals, made a further trial of nearly equal extent. They were also tested with the Dynamometer in a small field of wheat, of which there was only enough for each machine to cut one or swo swaths. There were three self-rakers tried—those we believe of R. Dutton, Grainger & Willson, and P. Manny.

The main portion of the trial was concluded Saturday night, nothing being deferred until this week but a more careful dynamometrical test in wheat, of some of the reapers.

We hoped now to have been able to present a fuller, more entirely accurate and more largely illlustrated account of this important trial. But the duties of the week were so pressing, and the time so short that we are compelled to make the above answer for the present; while, in the absence of the report of the Judges, (which it will take some weeks to make out, and which may not be published before the September Fair) it is manifestly impossible to present the results of their private investigations, and equally unfair to hazard an expression of individual opinion.

Among entries other than of harvesters, we notice those of Hay Presses, by W. Deering & Co., of this city, and G. D. Harris of Fitchburg, Mass., and one or two of Grain Cradles, Hay Rakes and Scythe Snaths, by other parties.

Meetings were held eliciting interesting discussions, Monday evening on Farm Implements, Tuesday evening on the State of the Crops, and Wednesday evening on Grasses, at which last a valuable paper was read by Sanford Howard.

In conclusion, Saturday afternoon, President Wilder addressed the Judges, thanking them for their industrious application to the tedious labors assigned them, and thanking also the citizens of Syracuse for their hospitalities and many attentions. Mr Gould responded in behalf of the Judges. To Allan Monroe, Mayor Baldwin, Dr. Wilbur and other prominent citizens. the Society and strangers were indebted for delightful entertainments. And it will not be considered invidious, if we add that to the untiring exertions in the field of President Wilder, to the indefatigable assistance of J. B. Burnet of Syracuse, and to Mr. Gould, the chairman of the Board of Judges, especial commendation and acknowledgments are due; while the whole committee performed the services required of them, which proved exceedingly laborious, with a cheerful and unwearied alacrity deserving the highest praise.

Ravages of Grasshoppers.—In our last we gave a letter from Minnesota, describing the ravages of grasshoppers in Scott county, together with a reply to the inquiries of the writer, by Dr. Fitch. A subscriber at Clear Water, Minnesota, writes us under date of July 1, as follows:—"We are plagued with grasshoppers a few miles on each side of the Mississippi river, for hundreds of miles above St. Anthony's Falls. They have eat up all crops here as bare as before sown or planted, which will be calamitous to many of our farmers whose means were exhausted in getting in their spring crops. Large fields of beautiful grain are entirely cut off in a few days. They came last year in season to cut off late crops and lay their eggs, which hatched out in the spring. If they do not leave us before again laying their eggs, we may as well give them full possession another year."

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* We are unable to specify the changes in the list of mowers tried the second day, as compared with those mentioned above, which were ready for the test on Tuesday. As will be seen by a comparison of numbers, there were considerable additions, while there were also some withdrawals, either on account of accidents or because exhibitors did not care to venture a further test.

Inquiries and Answers.

Kettle for Cooking Food.—What is the cheapest and best instrument to use for boiling food for 40 or 50 hogs? Would not a large kettle do? B. J. T. *Grundy Co., Tenn.* [Mott's Agricultural Furnace, largest size, would be a good thing—or a large kettle, holding two or three barrels, set in brick work, with a space all around between the kettle and brick work, and extending up to the top of the kettle, of about two inches, so that the flame as it ascends from the fire, shall be spread out into a thin sheet in contact with the whole outside, will answer nearly as well.

Ticks.—S. S. C. of Bowling Green, Ky., asks what will kill ticks on his horses and cattle. I suppose he means lice. Rubbing with hogs' lard will kill them, or he can buy unguintum at the druggists: a small quantity put on differents parts of the animal, will immediately kill them, but very little must be used on each animal. A better plan would be to feed his animals better, and give them good shelter in winter, with dry beds, and then they will have no lice on them. It is always unprofitable to keep any stock so that they have lice. John Johnston.

Do you know what is the *Pelican Apple* of the New-York Market? G. M. *Kensington, Ct.* [We do not.

Pea Nuts.—Mr. D. Shear of North Carolina, in a communication to the Patent Office, estimates the crop of Pea or Ground Nuts for 1856 at over 100,000 bushels, valued at $125,000. Their cultivation is summed up as follows: As soon as the frost is out of the ground the land is broken up, and about the middle of April laid off with the plow thirty-three inches each way; two or three peas are then dropped in the crosses thus made. The plants are kept clean with hoes and plows until the vines cover the ground; but no dirt is put on the vines. In October they are dug with a rake or plow. Hogs are then turned into the field, and they soon fatten upon the peas left upon the ground. When the vines are left upon the land for the hogs to feed upon there is no crop that improves the land so much.

Labels.—I notice a great deal said in Co. Gent. about *labels*. I have been in the habit of using a kind that answers admirably, and costs *almost nothing*. Get strips of *tin*, and with *aqua fortis* (*nitric acid*) and a *glass pen*, you can make a very durable label. J. W. *Henderson, N. C.*

Col. Geo. H. Waring of *Clarksville, Geo.*, inquires for "a thorough-bred 'Morgan' stallion, suitable for stock raising." Owners would perhaps find it to their interest to address Col. W. as above.

"Baker's Island Guano."—*E. J., S. C.* We cannot regard the prospects very good, of Peruvian guano's being cheapened by this discovery. We have received from our obliging Baltimore correspondent, a copy of an analysis of the Baker's Island guano, contributed by the Maryland State Chemist and his assistant, Messrs. Higgins and Bickell, to the daily *Sun* of that city, under date of June 13. It is there represented as being, in "composition and general character, identical with the common Mexican guano of the West Indies," although superior to it in "Bone-Phosphate of Lime," while on the other hand it is considered beyond competition with the Mexican, on account of its far greater distance from us.

Wool Producing Sheep.—Please tell me what kind of sheep will turn out the most wool, and of a good quality? W. Price. *Priceburg, Pa* [It would perhaps be impossible to decide this question in a few lines without taking a stand somewhere open to objection. In the usual classification of Long, Middle and Fine Wooled sheep, we have a line drawn between the characteristics of the different breeds, of which the Cotswold, South-Down, and Merino, may severally be taken as types. Each has its warm advocates—the first two generally yielding the "most," and the last the highest priced wool, while in England, where the carcass is the main object, the greater weight of the two former classes give them an almost undivided possession of the field. The Merinos support extremes of cold and heat, adapt themselves well to changes of climate, and are satisfied with ordinary attention and coarser food. Crosses between the several breeds have in many cases been made to good advantage.

Cheap and Durable Hay Caps.—Somewhere I have heard of "hay caps," or coverings for cocks of hay, while in heaps in process of curing. It strikes me they would be convenient and profitable. Can you inform me where they can be found? D. I. M. [They may be made at little expense, according to a recipe published in an early volume of the Co. Gent., of wide, coarse, cheap, unbleached sheeting, (say 42 inches wide,) cut square. Larger, they would too much exclude the air. A gallon of linseed oil, simmered with 4 lbs. beeswax, and a quart of Japan added after removal from the fire, will spread over 40 caps, and may be applied with a shingle like soft butter. Then sew into each corner a half-pound stone to hold them down, and they are done. No hemming is required, the wax holding the edges.

Spring Rape.—I imported some spring rape four years ago, and have raised it every year since. If sowed in April or May it will be ripe about the same time as oats. It makes good oil, which is used to a considerable extent in Germany for cooking, and can also be applied to the same purposes as sweet oil, and for burning in lamps. When used for salad, the oil is boiled and a few onions or raw potatoes cooked with it, which take the strong taste from it. [The above is furnished in answer to an inquiry, by Mr. John Moersch, P. M., *Beech Woods, N. Y.*, who offers on the receipt of four postage stamps to send enough to any person for a fair trial.]

Black Rot in Apples.—Can you inform me through the Cultivator, how I can prevent the black rot in my apples? They generally commence rotting on the trees by the time the fruit is half grown, or before, and continue on until but few get fully ripe; the trees stand on land that I think would be termed clay loam, and cultivated to peas every year, and the trees limed every spring, and look healthy—land not very rich. If you could give the cause, and the remedy, it would much oblige a subscriber, as fruit will be very scarce here this year. O. C. A. *Center, N. C.* [Any information on this subject from correspondents, would be gladly received.]

Transplanted Peach Trees Die.—Can you tell us why so many peach trees transplanted this spring have failed to grow? I heard a very general complaint in relation to them, and thought at first it might be mismanagement at the nurseries; but was told on Saturday by a very careful tree planter, that he went to the nursery, took up the trees and planted them out himself, so there could be no unnecessary exposure; out of 150 he thinks 100 will die. He states that a neighbor procured 400, and a large majority will die. Is it confined to this region? C. S. *Wayne County, June* 22, 1857.

Will some of your correspondents who have had any experience in the matter, please inform me through your paper what is the best time to cut Raspberry bushes on pasture ground. G. B. *Calais, Me.*

Butter Worker.—I have been told that there has been advertised in the Country Gentleman a Butter Worker, that performs very satisfactorily, and very efficiently. Can you or any of your correspondents inform me where it can be had, and if it has any true merit? Working butter is an operation which requires a machine of some power to press out the milk; and if that promises to be efficient, I would like to have one. A FARMER'S WIFE.

WHAT WILL CURE SWENEY?—I have a fine young mare troubled with Sweney. She is not lame as yet, but her shoulders are much caved in, and I fear are growing worse. I should like if some of your numerous readers would enlighten me as to the proper remedy S. P. F. *Newton, Jasper Co., Iowa.*

UNDERGROUND ICE HOUSE.—Have you or any of your subscribers ever lined an ice house (under ground) with stones instead of plank? If so, please give your success, and your opinion as regards others doing it, through the pages of the Co. GENT. A JERSEY SUBSCRIBER.

"RED DURHAMS."—*C. W. T., Sandusky, O.* The "Short-Horned" or "*Durham*" cattle are called by either name. The word *Red* in the name of the bull you mention, he probably derives from his color.

SICK CALF.—I have a calf six weeks old, which was taken sick a short time ago, and I think it will die. It at first for a day or two appeared to be "dumpish" and dull, and since then has constantly lain down, except when *driven* up, or it gets up to eat, when it trembles so as to be unable to stand but a few minutes at a time. I think it is not the result of a cold, as it has had good shelter and litter to lie on. It has been fed regularly milk and a small quantity, say half a pint, of oil meal each day. I have heard of such instances before, but have found no one to inform me of the nature of the disease, or a cure for it If you or any of your correspondents can do so, you would greatly oblige A SUBSCRIBER. *Enfield Centre, N. Y.*

CELERY.—Please inform me in your answers to inquiries, what is the best manure to put in the bottom of trenches for celery. W. D. MCGUIRE. *Wellsburg.* [Well rotted, rich, stable manure is the best—and if a little hen manure or guano has been added to it a week or two previously, it will give it additional strength—try both ways and report the results.

PEOPLES' JOURNAL—*W. P, Penn.* This was discontinued some time ago—the proprietor, A. E. Beach. being now one of the publishers of the *Scientific American*, a specimen copy of which paper you could probably obtain by addressing Munn & Co., Editors, 128 Fulton-st., New-York.

GAPES IN YOUNG TURKEYS.—Do you or any of your subscribers know the cause of these little worms in young turkeys' wind pipes, which prove a fatal disease, called the gapes, and is there a prevention? GREENWICH.

What information can you give relative to the culture of Cranberries on upland, sandy soil? How, or where are the plants obtained—where should they be set—at what distance apart, &c.? P. W. H. *Hydeville, Vt.*

THOMAS' FARM IMPLEMENTS.—*B. J. T., Tenn.* We can send you this postpaid, on receipt of one dollar.

ELDER BUSHES.—Can you inform me how to destroy elders? I have tried different modes, and been successful only in uprooting them, which is a tedious task. G. B. *Leyden, N. Y.* [Elders are hard to subdue, but Elliot, in his Essay on Field Husbandry, says that he knows from experience, that mowing them five times in a summer will kill them.]

WORK ON FARMING.—Please inform me where I can get the best work on Practical Farming, and what it will cost, and oblige. N. G. [Allen's American Farm Book, price $1, or $.25 by mail, is a good work. For a larger and more general work we would recommend the Farmer's and Planter's Encyclopedia, price $4, or $4.50 by mail.]

ETHAN ALLEN—It seems a mistake was made by a correspondent of this paper, in relation to the Black Horse "Ethan Allen," which is owned by Holcomb & Roe; and kept at the stable of O. S. ROE in Shoreham, Vt.

BLINDS FOR HORSES.—I noticed in the June number of THE CULTIVATOR, an article from A. B., Jr., headed "Blinds for Horses." "Perhaps the writer is an experienced horseman;" but it is clear to me that a horse can see better with his eyes open than with them shut. Every one knows, who has ever driven horses, that they invariably turn their heads at every unusual noise behind them. The only remedy is to drive without blinds so that the horse may see what is behind him. If A. B. will hang a side of harness leather in front of his eyes, he will find it difficult for him to see; but if he will take the *blinds* off of himself, he will take them from his horse, and then both will see better. S. *Jeff. Co., Ind.*

SECKEL PEAR.—We have a choice Seckel Pear, some ten years old, *standing near an elm*, which we have taken extra care of and makes wood rapidly, that the two past seasons has bloomed fully but *no fruit*. Now, please, what is the cause and the remedy? Has its contiguity to the elm anything to do with it? W. J. PETTEE. *Salisbury, Conn.* [We know of no influence the elm could exert to prevent fruitfulness—but could answer the question more understandingly if we knew the size, distance, and position of each.]

CURE FOR SWEENY.—I have a valuable horse lame in the shoulder, and suppose the cause to be the sweeny. The remedy recently published in your valuable paper, seemed to be a secret compound of stimulating or irritating oils. If you could give some information what those oils are composed of, you would do me a favor. N. HANSON. *Aurora, Cayuga Co., N. Y.* [Will "W. T. L.," who furnished the remedy referred to, enlighten our correspondent?]

TOP ONIONS.—A subscriber inquires in your issue of 2d instant, "if top onions set out this spring will, if preserved over until next season, produce top onions again." I have now growing three year old bulbs with very large, strong stalks, and crowned with a splendid crop of top onions, though of course yet green. They probably can be continued for any number of years, as the bulb is yearly renowed. Another fact in regard to top onions—a fine crop may be raised, (I mean of seed or tops,) the first season they are set. Select the *largest* seed or onions that grow on the top this season, and set them early next spring in good soil well manured, and almost every onion will throw up a strong stalk-bearing top. I have two or three square rods set with last year's tops, and with hardly an exception the stalks are crowned with fine bunches of top onions. S. STERLING. *Bridgeport, Ct.*

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Washing Fluid.

EDS. CULTIVATOR—In answer to an inquiry in the June No. of your paper, why Washing Fluid containing spirits of turpentine should not be used? permit me repectfully to answer: it is very injurious to the health of the persons using it. Its tendency is to relax and weaken the joints of the hands and arms, and more or less to affect injuriously the whole system. I have known various cases where it has caused the finger joints to swell, and be very painful after using it; and in one case, the finger joints would slip out, and it so affected the system that the urine of the patient was so saturated with it as to cause a strong smell of spirits of turpentine. True, it may not affect all persons using it alike injuriously, but it is a very unsafe preparation to be used in the way of washing. E. MAXSON. *Otsego Co.*

Notes about the West—II.

THE FACILITIES OF FARMING ON THE PRAIRIES.

One object to which we particularly devoted our attention, during our recent tour to the West, was its advantages and disadvantages for farming purposes as compared with the Central and Eastern States. To enable us to form an intelligent opinion on this point, while making our head-quarters at Rock Island on the Mississippi, we took several trips into the interior, up and down on both sides of the Mississippi. One of the most interesting of these, was a tour of about seventy-five miles, extending through the south part of Rock Island county, and into the north part of Mercer, in Illinois.

With a smart pair of poney horses and a light buggy wagon, we started from Rock Island—formerly the head-quarters of the famous Indian chieftain Black Hawk, and the seat of an Indian town containing a population of about 10,000 genuine "natives," but now a flourishing young city of eight to ten thousand people, comprising, as most of the new towns of the West do, representatives from all quarters of the Union and most of the nations of Europe. Crossing the Rock river, which empties itself into the Mississippi about three miles south of Rock Island city, and passing through the village of Camden, we soon drove over the valley, and entered upon our travels on the Prairies. In leaving the river valley, we rose on to a wooded ridge extending for three miles or more, before we came on to the beautiful rolling prairies comprising the southern towns of Rock Island county. We drove about sixty miles over these prairies, following "the main travelled road," which, instead of being a surveyed and located road, leads where the convenience of the settlers prompts—turning this way to avoid a "slough," or square about to the right or left, to pass around the newly erected fence of some recent settler, for when a new-comer buys a quarter-section, more or less, he pays no regard to the roads crossing it, but cuts them off just as suits his convenience in fencing. The consequence is, as the lots fenced in usually consist of forty, eighty or one hundred and sixty acres, the traveller is often put to no little inconvenience in getting around these large lots, and again finding his way into "the main travelled road."

The weather was comfortably cool, and the roads all that could be desired—the rich prairie soil forming a hard carriage road over which it was a delight to drive a good team. As we were in pursuit of information, we made it a point to have a social chat with nearly all the farmers who chanced to be in sight as we passed their farms. We were everywhere cordially received, and our numerous questions promptly and cheerfully answered. We are, however, under particular obligations to Daniel DeGraff of Buffalo Prairie, Clinton G. Taylor of Pleasant Ridge, and John Edginton of Edginton, for the freedom with which they imparted the details of their own operations and their views of the prairie region as a farming country.

The first and most striking advantage which the new settler on the Prairies, possesses over one who selects a home in a wooded country, is found in the facility and economy with which his land—not a portion, but the whole of it if a good selection has been made, may be brought into profitable culture. Instead of spending years of toil, as the fathers in the Atlantic States had to do, in chopping, logging, burning and clearing up and fitting their land for the plow, the Prairie farmer finds spread out before him a virgin soil of almost unsurpassed richness, all ready for the plow, and without an obstacle to obstruct its progress perhaps, until it shall have passed over the whole extent of the farm, every foot of which, with sufficient force, may if desirable, the second season be got into wheat.

The first thing to be done on entering upon a new Prairie farm, is to provide some sort of a home for the family. For this purpose the necessary lumber must be procured usually at some distance, and be carted from the rail road or river. A well also must be dug, and posts and boards provided for fencing as much as is to be got into sod corn the first season. A comfortable house, one and a half story high, with five rooms, can be built for about $450—a well will cost not far from $30, and a post and board fence say $1.00 to $1.25 per rod.

Breaking the Sod.—The first of May is the best time to commence this operation. It is usually done by the job, the price being uniformly, so far as we heard, $3 per acre. Teams of four to six yoke of oxen are usually employed for this purpose, with a heavy breaking plow which turns a furrow two to three inches in depth by twenty-four inches in width.* The usual day's work with this plow and team, is two acres, or twelve acres per week. This appeared to us very slow work and a great waste of team. We felt confident from the little practice we obtained by following several of these plows, that three good yoke of cattle would have accomplished the same amount of labor with ease, but it is the custom to have five or six yoke, and the plowmen are ambitious to have the larger number, and seem to think they cannot get along with less. We were, however, confirmed in our opinion when we visited the farm of Clinton G. Taylor, Esq., Pleasant Ridge, where we found his son, only seventeen years old, breaking the sod with a single pair of horses, and a light but admirably made plow, which cut a furrow of twelve inches. With this plow and team, Mr. T. informed us that his son broke nine acres in a week, without difficulty. This breaking up should, we were informed, be done while the grass is in vigorous growth, as at that time it will all be killed, while if broken up after the grass has ceased to grow in hot weather, much of it will start up again, to the serious detriment of the future cultivation of the field. Hence May and June are considered the two best months for sod-breaking.

Sod Planting.—Indian corn is planted on the newly broken sod. This is usually done by making a hole in the sod with an ax or sharp hoe, and covering with the heel of the boot. We were told, however, that the corn is sometimes strewn on the grass, and covered by the plow turning it under the sod, and we saw a field being planted in this manner. It is said the corn finds no difficulty in making its way up through the sod, when placed fairly under it, but if it falls near the edge it will find its way out between the furrows and amount to nothing. This planting may be continued as late as the 25th of June, and if the season is favorable it will be matured. This first crop receives no culture, and produces from ten to twenty-five bushels per acre.

Second Year.—If intended for Indian corn, the land broken up the previous year, is replowed to the depth of four or five inches, and the seed planted generally with machines. We saw one in operation, invented by Geo. W. Brown of Galesburg, Ill., drawn by a pair of horses, with two men on it—one to drive and the other to tend the machine, which planted two rows at a time, and with which it is said 15 to 20 acres were planted per day. When the corn is well up, the ground is harrowed, the teeth passing directly over the hills being taken out. The only after culture it receives is from the plow or cultivator, one of which is usually run three times through the rows. Good farmers expect in favorable seasons, from 60 to 75 bushels per acre. Mr. JOHN EDGINTON, who had 180 acres in corn, informed us that he had grown it in very favorable seasons, at an expense of five cents per bushel, but that he considered ten cents per bushel as a fair average cost of culture.

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* One of the prettiest sights we saw on the prairies, consisted of six teams of five yoke each, attached to three big wheel plows, and following each other through furrows of just a mile in length, the whole turning over a breadth of twelve feet at each bout or passage across the lot.

When the ground is to be sown with spring wheat, barley or oats, it is not plowed in the spring, but the seed is sown on the corn stubble or fall plowed land, and either harrowed or plowed in with a double shovel plow. Average product estimated at 20 bushels spring wheat, and 50 bushels oats per acre.

Thus it will be seen that the farmer may receive a crop of sod corn the first year, and a crop of wheat, barley or oats the second, from as large a portion of his land as his force will enable him to bring under the plow, at an expense of one plowing and a thorough harrowing only. His land, thus easily and cheaply brought into cultivation, is now ready for any crop which it will grow. The soil being very loose, the labor required for its future culture is much less than on harder and more compact soils, while its freedom from stumps and stones enables him to avail himself of all the varieties of machinery used in farming, such as planters, drills, reapers, mowers, &c. With these advantages, we were not surprised at the desire almost everywhere manifested for large farms and large fields, the fenced lots seldom enclosing less than forty, frequently eighty, and sometimes one hundred and sixty acres. And we confess that these large fields of wheat and corn possessed a magnificence and beauty for our eye, such as we had never before witnessed, though without the charm of shady grove or purling stream. The wonder was that with such a vast extent of prairie inviting the culture of man, we should have found most of the products of the soil at nearly famine prices—corn at 65 to 75 cents—potatoes at $1.50 to $2.00 per bushel—butter, at 25 to 30 cts. and cheese at 12 to 15 cts. per lb.—hay at $30 to $40 per ton. But these prices were extraordinary, and must, by the rapidly increasing extent of land being now every year brought under cultivation, soon be very greatly reduced—so much so we doubt not as to reduce the profits of farming to a comparatively low ebb; but we do not apprehend, as some seem to do, that the time will soon arrive when wheat and corn and beef and pork will be a drug in the market. [We shall resume this subject hereafter.]

Crops, &c., in Western New-York.

On the way to Syracuse early last week, we saw little corn much more than a foot above the ground. Through that section of the state embracing Onondaga, Cayuga and Seneca counties—so far as we could learn, a considerable portion of the corn crop must be an entire failure—how large a part may be secured in the end, will depend upon the weather we have from this time forward, and the holding off of the fall frosts. The wheat would be an excellent yield, but for the weevil, and serious fears are entertained for the results of its depredations, which have already been quite severe. The crop is unusually late, owing to its backward start from the unfavorable weather last autumn, and is thus more exposed than ever to the provoking ravages of this rascally insect. We shall hereafter refer to the magnificent fields of wheat on some farms in the vicinity of Geneva. Oats and barley on all soils not too wet, are promising very finely, at least in Seneca Co. The warm weather last week, has done not a little in bringing them forward, and has also been of great use to corn, although the majority of fields devoted to the latter have a yellow hue and stunted, uneven growth. Our friend JOHN JOHNSTON's cornfield is far more advanced, more even, and of better promise, than any we saw elsewhere, and perhaps not quite equalled on the best farms in his own vicinity. The hay crop is certainly a good, if not a very superior one—the fields which were mowing at Messrs. Johnston's, Swan's and Foster's, near Geneva—mainly of Timothy—were exceedingly fine. We believe the yield of clover was not generally quite as good in proportion as that of other hay. The mowing had been going on for some days at the time of our visiting Geneva, but wheat would not be ready before next week.

It is proper to add that we are indebted to Mr. JOHNSTON, during the single day spent at his place, for the opportunity of seeing some of the best farming in his neighborhood, (in addition to his own,) our notes in relation to which are necessarily deferred until a future issue. We had a very pleasant call with him at

WHITE SPRINGS FARM—the residence of JAMES O. SHELDON, Esq. It comprises three hundred acres, and there is no better land perhaps in western New-York, its great need at present being drainage. Springs of excellent water rise in great abundance all over it—indeed, digging to the depth of a few feet at almost any point throughout the whole, will strike running water. The village of Geneva, at a distance of a mile and a half, obtains its supply from one of the springs, and others furnish power enough to carry one or two mills on the place. The grounds about the house are very tastefully laid out, the garden beautifully arranged, and the lawn in front ornamented by a natural grove as finely disposed as could have been designed by the most skillful hand and artistic eye. There are large and valuable beds of marl, which Mr. S. proposes to use as a fertilizer. We examined with much pleasure

MR. SHELDON'S SHORT-HORNS AND ALDERNEYS.—Of the former he has several beautiful cows, one imported, "Delia," bred by Mr. Tanqueray, and sired by "Duke of Gloster;" "Grace" and "Josephine," sired by "Marquis of Carrabas," and a heifer calf from the latter sired by "Duke of Oxford;" "Chatelaine," by "Balco," and "Christabel," by "Young Balco,"—also a young bull calf, out of Mr. Thorne's "Peri," by "Grand Duke." They form as select a lot as could be desired by the most fastidious, and we understand their owner intends to take an early opportunity of securing a first class bull by which to maintain the excellence of his herd, and aid in improving the stock of his neighbors. The Alderneys include a bull, four cows and two young heifers—the first and several of the females being of Mr. Sheldon's own importation, and all very choice and valuable animals. We should not close without mentioning

A BEAUTIFUL VIEW—which may be had from the neat rustic summer house in Mr. Sheldon's garden, and which embraces a wide extent of fine country, while in the distance the villages of Waterloo and Seneca Falls, and in a clear atmosphere, even the city of Auburn, are quite distinctly seen. Although the place has only been in its present proprietorship for the past five or six months, many repairs and improvements have already been entered upon, and its natural capabilities are such as to render it susceptible of being made one of the most productive as well as highly ornamental estates within our knowledge. It may be already known to some of our readers as for many years the residence of Gideon Lee, during whose life time it was brought to a high state of improvement, and large and commodious buildings erected. Neither the land nor buildings have been very well kept up since his death.

Notes for the Month.

Billings' Corn-Planter.—We have made a trial of this machine by planting about 15 acres with it, the whole inverted sod, moderately harrowed. I has performed the work well. The field thus planted is remarked as the *most even* in the neighborhood. It will drop in hills of any desired size, by varying the hole in the slide; and the distance of the hills apart in the row may be 11 inches, 22 inches, or 44 inches. We adopted the medium distance of 22 inches. It is drawn by a horse, and deposits a row of hills as fast as the horse will walk, and is easily made at the same time to drop a spoonful, more or less, of plaster, ashes, or any other pulverized manure, in each hill, all at the same operation. No planting machine worked by a horse can be made to deposit hills *in rows both ways*, but we prefer drills or rows of thick hills, to any other mode, as, according to careful and measured experiments which we have made, about one-third more corn will grow on a field planted by the latter mode,* than by placing the hills so as to be cultivated in both directions, while on clean, well farmed land, there is but little difference in the labor of tillage.

Fine Strawberries—Wilson's Albany Ahead.—Mr. J. M. Northrop, last August, set out in a dooryard in this city, 50 plants of Wilson's Albany strawberry and 25 of Hovey's Seedling—the whole occupying a space less than 10 feet square. The latter of the two sorts had somewhat the best position; both were treated alike, neither receiving any extra cultivation or particular care. Up to June 29, this little patch had averaged over a quart a day for a week. Comparisons between the two varieties were all very much in favor of Wilson's. As regards productiveness, up to July 2d it had yielded many times the quantity of Hovey's, and promised to continue in bearing several weeks, while the latter was already out of fruit. It has excelled in size, and every body prefers its flavor. Among the berries, Mr. N. has gathered a number full four inches in circumference, and of 4 which ripened at the same time on one stalk, one measured more than 4 and the others all more than 3½ inches. The average size throughout is large; the flesh firm, although juicy, excellently qualifying it to bear transportation.

All who have tried this as yet comparatively little known variety, unite in speaking well of it. No pains have been taken to attract attention to it, and on this account we the more cheerfully publish such voluntary evidences of its excellence as the above. Not only will no collection hereafter be considered complete without it, but we shall be much mistaken if it does not at an early day displace many of the popular favorites.

Reaping Machines—Home and Foreign Fertilizers—In an article on the more recent improvements in Agriculture the Farmer's Magazine wonders that "the American reaping machine," the very worst work it ever saw performed by which, "left far less raking than the best mowing," has made so little progress among English farmers. "Oh! but then the Royal Agricultural Society have decided that it has not yet been brought to perfection!"

—The same article expresses surprise at a point upon which a home lesson may be learnt by American farmers. Guano is a "pet;" such undue importance is attached to it that it would scarcely be surprising "if some were to relinquish farming altogether, if the supply of guano were exhausted or rendered unattainable." *At the same time the manures which exist in the sewage of towns, liquid manures,*—and how many, other materials of the greatest richness and value as fertilizers, may we not add for the mass of farmers in this country?—*are either entirely*, or very generally, *neglected!* Will some accomplished arithmetician please "figure up" the *economy* of these modes of farming, and lay the results before our readers?

Mr. Wainwright's Sale.—The following is the result of the Devon sale at "The Meadows," June 17th:

1.	Joseph Hilton, New-Scotland,	Nonpareille,	$125
2.	do. "	Moss Rose,	110
3.	do. "	Volga,	125
4.	D. Griffin, Clinton,	Zeila,	140
5.	" "	Sacsusa,	135
6.	E. Cornell, Ithaca,	Yuba,	100
7.	M. Vassar, Poughkeepsie,	Minnesota,	155
8.	" "	Alma,	135
9.	" "	Weigela,	140
10.	J. W. Hamlin, Erie Co.,	Dora,	140
11.	" "	Rowena,	145
12.	S. Howard, Boston, Mass.,	May-Boy,	300
13.	M. J. Faison, North Carolina,	Hobbamok,	115
14.	M. Vassar, Poughkeepsie,	Kwasind,	105
15.	(Not sold.)	Narraganset.	
16.	Hon. John Wentworth, Chicago, Ill.,	Chibiabos,	185
17.	(Not sold.)	Arkansas.	
18.	M. J. Faison, North Carolina,	Taminund,	100
19.	(Not sold.)	Potomac.	
20.	(Not sold.)	Naugatuck.	
21.	M. J. Faison, North Carolina,	Kennebeck,	100
	Total for 17 head,		$2,355
	Average,		$138.50

☞ We have received a very handsome lithographed engraving of a vase of "California Fruit, printed for the Agricultural Exhibition, from specimens raised by Thos. M Logan, M. D, at Smith's Gardens, near Sacramento." The samples comprise "Crawford's Late Peach, circumference 12 inches, weight nearly 12 oz.; Smith's California Seedling Strawberry, largest diameter two and one-fifth, and the shortest, one and one-quarter inches; Black Hamburg Grapes, average diameter eight-tenths inches, and Cannon Hall Muscat do., average diameter nine-tenths inches."

Evan's Rotary Digger.—A trial of this implement, a cut of which recently appeared in our columns, took place June 20th, attended by several members of the Philadelphia Ag. Society, on the place of Mr. J. C. Vogdes, near that city. The ground is said to have been very heavy and wet, notwithstanding which "the trial seemed to give great satisfaction to those present."

Short-Horns as Milkers.—Mr. Thomas Willlis o Ireland, in a communication to the Irish Farmer's Gazette, says: "It is frequently said in derogation of Short-Horned cattle, that they are very deficient in milking properties. In proof that such a charge is unfounded, I send you an account of the produce of my cow "Eleanor," Herd Book, vol. x, page 345:

In 1851, when 3 years old, from one week's cream, 18 lbs. butter, (16 oz. to the lb.)

In 1855, when 7 year's old, from one week's cream, 21 lbs. 4 oz.

In 1857, when 9 year's old, from one week's cream, 24 lbs. 8 oz.

In the same year, the second week after calving, 24 lbs. 8zo.

"Terra-Culture."—Mr. O. S. Murray, of Warren Co., Ohio, issued under date of 25th May, a circular headed as above, to which we have intended to refer for several weeks. It is not too severe upon the pretensions of "discoverer" Comstock, who has been afflicted many years with an idea of the importance of his "revelations," only worthy of notice as honest men become its dupes. It seems that he has offered large rewards to any one who will show that he is not a "great discoverer," or bring forward any improvement upon, or prove any error in, his so called Terra-Culture. Mr. Murray claims the rewards on all three points, but as the offers are as thoroughly sham as the "discovery," it will probably be some time before he secures the $1,200.

The facts are probably pretty much as summed up by Mr. Murray; Comstock recommends some things always known to be good, and more or less practiced every where; he mingles them through a tedious "disclosure" of half-a-dozen or more mortal hours, by which means he generally convinces his hearers, 1., that he has said a *great deal*, and 2., that there *may be something* in it; and with all his pretended knowledge of his subject, he fails to eschew much that is absolutely useless, and not a little that is really hurtful. We are beginning to be very shy of "Professors;" it seems to be a habit they are getting of late to claim the originating and proprietorship of all good and of all advancement, while they are by no means above disposing of the same by the lecture, by the ton, or by any other convenient measurement or name, known or unknown either in arithmetic or practice. The grand secret of universal fertility, whether "disclosed" through the country on a two-dollar *per capita* arrangement, or bagged and branded from a chemical manufactory, is something of which in these days, one has to be a little suspicious.

ALBANY COUNTY AG. SOCIETY.—The Prize List of this Society for its next Fair—to be held at Washington Parade Ground in this city, Sept. 15–17, has been issued, and copies may be procured of the Secretary, A. F. CHATFIELD, 414 Broadway.

ADDRESS AT BUFFALO.—We learn that Hon. EDWARD EVERETT will deliver the address before the N. Y. State Agricultural Society at their show this fall. This eloquent orator, whose productions always give evidence of careful polish and considerable thought, can but attract many eager listeners, and will delight if he does not instruct all who are present.

CHESS.—We have another letter from "Enquirer," whose previous article on the transmutation of wheat to chess was noticed at page 400 of last vol. of Country Gent., in which he describes a head of wheat and chess which he found in 1834, and which he thinks proves conclusively that wheat will turn to chess. We have seen many such heads, with wheat and chess *apparently* growing together, and have several times within the last twenty years explained the phenomenon, and shown that the chess had no natural connection with the wheat, but grew on a stalk of its own. In THE CULTIVATOR for 1851, p. 53, a full explanation, with an engraving, will be found, which we think will show our correspondent how his head of wheat and chess became united; and we can assure him that, though many persons have supposed that they possessed or had seen the proof that wheat would turn to chess, yet no such proof has ever been presented, which would bear the scrutiny of a careful examination.

DEVON CATTLE AND SOUTH DOWN SHEEP.—It will be seen by an advertisement in this paper, that L. F. ALLEN, Esq., proposes to offer at public sale on the 9th of September, his entire herd of Devon Cattle and flock of South Down Sheep—the sale to take place at his farm on Grand Island.

CANADA AG. EXHIBITION.—The coming exhibition of the Provincial Ag. Association of Canada West, is to be held at Brantford, Sept 29 to Oct. 2 –the week previous to the New-York State Show at Buffalo. There is a liberal list of prizes for domestic animals and agricultural implements from the States.

WESTERN VIRGINIA AG. SOCIETY.—We have received the annual Prize List of this Society, whose head quarters are at Wheeling. It embraces particularly the western counties of Virginia, and the counties of Ohio on their borders; but its premiums are open to all who choose to compete for them. Its Fair is to be held at Wheeling Island, Sept. 16–18.

☞ The Clarke Co. (Ky.) Ag. Society, organized last month, holds its first show Aug. 19–21—W. R. DUNCAN, President.

WILSON'S ALBANY STRAWBERRY.—At a recent meeting of the New-York Farmer's Club, Mr. PARDEE, author of a well-known treatise on the culture of this fruit, mentioned his having had a single plant of Wilson's Albany, which produced no less than *one hundred and eighty berries*. A. P. CUMINGS, Esq., Editor of the *N. Y. Observer*, in the last number of that paper, speaks of the exhibition before the New-York Horticultural Society last year, of a single plant from his garden, less than one year old, and bearing on five foot stalks the immense number of *two hundred and sixty berries, green and ripe!*

Mr. Cumings also speaks of "Hooker's Seedling" as "of the highest and most exquisite flavor, of very large size and great productiveness only second to Wilson's seedling."

☞ We have received the prize list of the United States Ag. Society's Show at Louisville, Ky, Sept. 1–5, 1857. It is said to amount to $12,000, and can scarcely fail to elicit animated competition.

GOOD SAMPLES OF MERINO WOOL.—Enclosed I send you two samples of wool from my two-year-old buck; he was sheared close and clean on the 8th day of last June, and again on the 18th this June. His fleece weighed 17 1-4 lbs.; carcass 117 lbs. You will perceive that his wool is pretty free from black tarry gum, remarkably long and compact. I have a yearling whose wool is of a finer quality; his fleece weighed 13 1-2 lbs.; carcass 94 lbs. A small sample from a ewe that has a buck lamb by her side—fleece was 10 lbs. and some ozs., even, all clean and nice. They are descendants from Col. Humphrey's importation of Spanish Merinos. If I recollect rightly, he imported them in 1809 or 1810. The two-year-old took the second premium in the sweepstake class, at our third annual sheep show held at Penn Yan in May last. He was bred by T. Stickney of Vermont, who has bred some of the most celebrated bucks of that State, among which was Jewett's brag buck 'Fortune,' Bingham's 'Vermont Hero,' and many more noted sheep. O. F. MARSHAL. *Wheeler*. [Our correspondent's letter of May 6 was duly received.]

☞ We see it stated that some of the breeders of fine stock in Bourbon county, Ky., have been discussing among themselves, the propriety of organizing a permanent company, for the public sale, annually, of breeding stock of every description. A public meeting was called for last Friday, for the discussion of the subject, the result of which we have not yet heard.

DEPTH OF PLOWING.—It requires but a moment's reflection to perceive that there is a propriety in making the depth of one's plowing, correspond in some degree to the nature and habits of the crop designed for the land. This matter, however, has received but little attention either theoretically or in practice. One of the best farmers in Rhode Island plows to the following depths for the several crops named: For corn and potatoes, 8 inches; for rye, 4 to 5 inches; and for onions, beets, carrots, &c., 12 inches.

STEAM FOR FARM USE.—If I had time I would like to answer A. C. W, on Steam *vs.* Horse Power, page 395, last vol. Co. Gent. I will just say I have used an Engine several years, for sawing, churning, threshing, cutting feed, &c., with perfect safety and economy, and prefer it to any other motive power, especially for churning for a large dairy G. A. HANCHETT. *West Stockholm, N. Y.*

BANKING UP SUCCESSFUL AGAINST MICE.—I tried heaping up a small mound of earth around my fruit trees, last winter, to protect them from the mice, and with perfect success. Of about three hundred pear trees thus guarded, not one was injured by the little depredators; while two or three not protected were badly gnawed. I found also that Queen of the Bourbons and Souvenier de la Malmaison were perfectly protected by a slight covering of earth. F. RANDALL.

Value of Clover Hay.—H. Capron, of Illinois, who has been largely concerned in the dairy business, (having sold $6,000 worth of milk in a single year,) informs us that he made accurate experiments to test the comparative value of timothy and clover hay. These experiments extended through a period of two years, were accompanied with accurate weighing and measuring, and the food was changed from timothy to clover, and vice versa, once a month, and results were that the clover hay uniformly yielded ten per cent. more milk than the timothy. It will be observed that this was not a single experiment, but a *series* of experiments extending for a long period. It is also proper to state that the clover was well cured.

Farming on Shares. — A correspondent who has sought in vain for full and detailed information on the "system of share farming," suggests the propriety of offering a prize of $50 for the best essay on the subject, which is one of much importance both to the landholder and the farmer. Information is wanted as to the rules which govern in such cases in different parts of the country, in relation to the different branches of farming, stock growing, dairying, market gardening, &c., the amount of capital to be furnished by each party, the division of the products or profits, and the rights and privileges to be enjoyed by the parties. The prize proposed, and to which our corrospondent would contribute $10, might induce some one to collect and arrange the desired information. In the mean time we shall be glad to receive from our readers any facts they may be able to furnish on the subject.

Great Sale of
DEVON CATTLE
And South Down Sheep.
On Wednesday, 9th of September, 1857.

I will sell at public auction, without reserve, my herd of Devon Cattle, about forty-five in number, and my flock of South Down Sheep, about one hundred, at my farm on Grand Island, two miles from the rail road and omnibus stations in North Buffalo.

I have bred Devons for many years. The original stock were derived from the best animals. and for the last seven years my breeding bulls have been of imported blood, direct from Devonshire, England, which, with several of my present cows, are recorded in the English Devon Herd Book. All my herd will be recorded in the American Devon Herd Book, soon to be published, and are equal probably, in quality, to any others in this country. The herd consists of about 30 cows and heifers, and 15 or 16 bulls and bull calves.

My South Downs are descended originally from the flocks of Mr. Ellman, the Duke of Richmond and other celebrated English breeders, crossed for the last seven or eight years with rams bred by the great South Down breeder, Mr. Webb, of Babraham, England. There will be 75 or 80 ewes, the remainder rams.

As I intend making a CLEAN SALE, this will probably be a better opportunity for purchasers to select animals to their liking than any other which will occur for some time.

Descriptive Catalogues will be ready by the first of August, which will be sent by mail to all those applying to me by letter.

Terms of Sale.—For all sums less than $100, cash; on sums of $100 and over, good notes at three months, on interest, payable at the bank, will be received.

The stock will be delivered on steamboat or railroad, at Buffalo, as may be desired, the day after the sale.

Those wishing to view the stock previous to the sale, will be conveyed to the farm by calling at my residence; and those attending on the sale day will cross the Niagara river between the farm and the main shore by steam ferry from the omnibus station at Lower Black Rock or North Buffalo, to which either the omnibuses or rail cars will bring them from their stations in Buffalo. Sale to commence at 11 o'clock, A. M., of the first day.

LEWIS F. ALLEN.

Black Rock, N. Y., July 16, 1857—wcow5t—m2t.

Cranberries.—C P. Wood, Esq., of Auburn, planted nearly half an acre of cranberries the past spring, the vines being procured of D. L. Halsey, Esq., of Victory, N. Y. When we saw them recently they were growing finely, and afforded promise of favorable results. We shall be glad to hear that his expectations in regard to their productiveness are fully realized.

Catalogue of Short-horns.—Messrs. John and Albert Allen of Lexington, Ky., have just issued a "Catalogue of Improved Durham Cattle," belonging to them, comprising forty-one females and thirteen males.

Cider Mill and Press,

Much Improved over Last Year's Make.

1. The frames are put together with joint bolts.
2. The fly wheel is 22 inches in diameter instead of 16.
3. The form of the teeth has been changed, so as to make them grind easier and freer.
4. Entirely new gearings have been constructed.

For sale by JOHN ALEXANDER,

Aug 1—m2t—waug20 4t. 34 Cliff-st., New-York

Suffolk Pigs for Sale.

A LARGE imported BOAR and a few SUFFOLK PIGS, for sale by W. H. CLAY,

July 16—w&m1t.* South Side Staten Island.

TO

Young Men

And Friends of Education.

EASTMAN'S COMMERCIAL COLLEGE,
OSWEGO, N. Y.,

IS guaranteed the cheapest and best Institution for the EDUCATION OF YOUNG MEN, in the United States.

It is by universal accord the largest and most thorough Commercial College in the Union. Two hundred and sixty students in attendance, from twelve different States and the Canadas.

The yearly term will commence Thursday, October 1st., next.

John G. Saxe of Vermont, the distinguished Poet and Scholar, is engaged as Poet for the occasion, and Hon. Wm. F. Allen of Oswego, Judge of the Supreme Court, as Orator.

The Lecture Course will be continued by the most eminent and Scientific Literary men in the country, embracing the following distinguished names:

Rev. E. H. Chapin, New-York.
Hon. Cassius M. Clay, Kentucky.
Rev. Theodore Parker, Boston.
John G. Saxe, Esq. Vermont.
Hon. Wm. F. Allen, Oswego.
Wendell Phillips, Boston.
Rev. John Pierpont, Williamsburgh.
Park Benjamin, Esq., New-York.

These valuable lectures are provided for the benefit of the students, and they are admitted to the full course free of charge.

Students can enter at any time, and graduate as teachers in a single winter season, or go through a thorough course of Book Keeping, Commercial Penmanship, Science of Accounts, and Commercial business, in from six to ten weeks.

Students from this and other States will be carried from Syracuse to Oswego, over the Oswego R. R., FREE OF CHARGE. Canada Scholars will come by the way of the Lake, Suspension Bridge, or Cape Vincent.

All are requested to give this school their attention, and address the Principal for the Annual Catalogue, which will give them full information.

H. G. EASTMAN Principal.

Oswego, August, 1, 1857—m1t.

Farm for Sale.

THE subscriber offers for sale his farm in Fairfax Co., Va., 6 miles north of the Court House, and about 20 miles from Alexandria and Washington respectively, and 2 miles from the Manassas Gap and Alexandria R. R. Station, and 3 miles from Alexandria, London and Hampshire Railroad Station, both roads being now in course of construction.

The farm contains 321 acres of land, about half of which is cleared and under a good state of cultivation; the balance is in timber. There is supposed to be 200,000 feet of good saw timber on the land There is two steam saw-mills, lately put up, in the neighborhood; one near one side of the land—the other is about half a mile from the other side. The land can be divided into three farms; there are three dwelling-houses on it, all nearly new. There is a large orchard of apples of choice improved fruit, now bearing; also peaches, plums and cherries. The land is well watered by never-failing springs that run together, and afford plenty of water to drive a wheel of capacity enough to saw wood or thresh. A large portion of the land is alluvial bottom, a portion of which is cleared and ditched.

There is also a stone quarry on the land. To one seeking Virginia land, this presents many inducements, and will be sold low, and on reasonable terms of payment.

Any one wishing further particulars respecting the land, may address me at Chantilly, Fairfax Co., Va.

July 16—w1tm2t. BENJ. R. BARLOW.

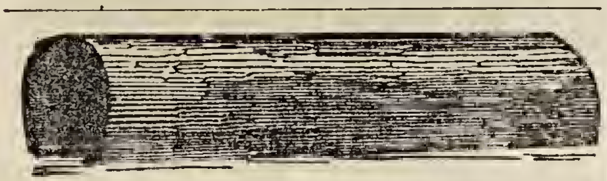
ESSEX PIGS.

THE Subscriber is now ready to receive orders for pigs of this breed from his Spring litters. Three of these were sired by his imported boar "Brum," selected as the best pig in the pen of five to which the first premium was awarded at the Birmingham (Eng.) Show in Dec., 1856; and two by Mr. Thorne's imported boar "Chelmsford," winner of the first prize at the last Show of the Royal Ag. Society.

Selections will be made in strict accordance with the order of application. Where pairs are sent they will be taken from litters sired by different boars.

Price at six weeks old, $25 per pair; single pigs, $15; well boxed and shipped at Rhinebeck. TERMS CASH.

C. S. WAINWRIGHT,
The Meadows,
June 25—w4t—maug&sept. Near Rhinebeck, N. Y.



ALBANY TILE WORKS.

Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches rise,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches rise,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y.
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y

Agricultural Books,

For sale at the office of the Country Gentleman.

First Class Family Journals.

LIFE ILLUSTRATED: A First Class Pictorial Paper, weekly. $2 a year; $1 for half a year....WATER-CURE JOURNAL: Devoted to the Laws of Life and Health. $1 a year....PHRENOLOGICAL JOURNAL: Devoted to the Improvement of Mankind. $1 a year. The three Journals sent one year for $3. Address

FOWLER & WELLS,
July 9—w4tm2t. No. 308 Broadway, New-York.

Choice Farm Lands for Sale.

THE ILLINOIS CENTRAL R. R. COMPANY,

IS NOW PREPARED TO SELL ABOUT

1,500,000 ACRES

OF CHOICE FARMING LANDS,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE Lands were granted by the Government to aid in the construction of this Road, and are among the richest and most fertile in the world. They extend from north-east and north-west, through the middle of the State, to the extreme south, and include every variety of climate and productions found between those parallels of latitude. The northern portion is chiefly prairie, interspersed with fine groves, and in the middle and southern sections timber predominates, alternating with beautiful prairies and openings.

The climate is more healthy, mild and equable, than any other part of the country—the air is pure and bracing, while living streams and springs of excellent water abound.

Bituminous Coal is extensively mined, and supplies a cheap and desirable fuel, being furnished at many points at $2 to $4 per ton—and wood can be had at the same rate per cord.

Building Stone of excellent quality also abounds, which can be procured for little more than the expense of transportation.

The great fertility of these lands, which are a black rich mould from two to five feet deep, and gently rolling,—their contiguity to this Road, by which every facility is furnished for travel and transportation, to the principal markets North, South, East, West, and the economy with which they can be cultivated, render them the most valuable investment that can be found; and present the most favorable opportunity for persons of industrious habits and small means to acquire a comfortable independence in a few years.

Chicago is now the greatest grain market in the world—and the facility and economy with which the products of these lands can be transported to that market, make them much more profitable at the prices asked, than those more remote at government rates,—as the additional cost of transportation is a perpetual tax on the latter, which must be borne by the producer, in the reduced price he receives for his grain, &c.

The Title is perfect—and when the final payments are made, Deeds are executed by the Trustees appointed by the State, and in whom the title is vested, to the purchasers, which convey to them absolute titles in Fee Simple, free and clear of every incumbrance, lien or mortgage.

The Prices are from $6 to $30—Interest only 3 pr. ct.

Twenty per cent. will be deducted from the Credit Price for Cash.

Those who purchase on long credit, give notes payable in 2, 3, 4, 5 and 6 years after date, and are required to improve one-tenth annually for five years, so as to have one-half the land under cultivation, at the end of that time.

Competent Surveyors will accompany those who wish to examine these Lands, free of charge, and aid them in making selections.

The lands remaining unsold are as rich and valuable as those which have been disposed of.

SECTIONAL MAPS

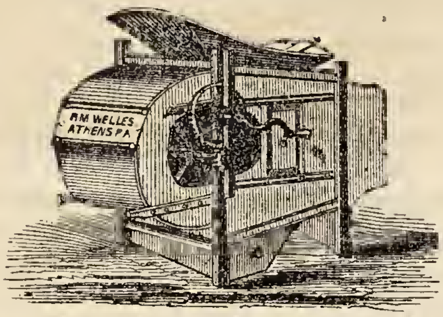
Will be sent to any one who will enclose fifty cents in Postage Stamps, and Books or Pamphlets, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad Lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc.,—or any other information—will be cheerfully given on application, either personally or by letter, in English, French or German, addressed to

JOHN WILSON,
Land Commissioner of the Ill. Central R. R. Co.
Office in Illinois Central Railroad Depot, Chicago Ill.
April 9—w&m6m

Please to Read This.

IF YOU WANT EMPLOYMENT, send at once for Mr. Sears' Circulars to Book Agents. Our publications are considered among the most saleable. Address (post-paid) ROBERT SEARS, Publisher,

March 19—w6tm6t No. 181 William-st., New-York.



The Elcelsior Fanning Mill.

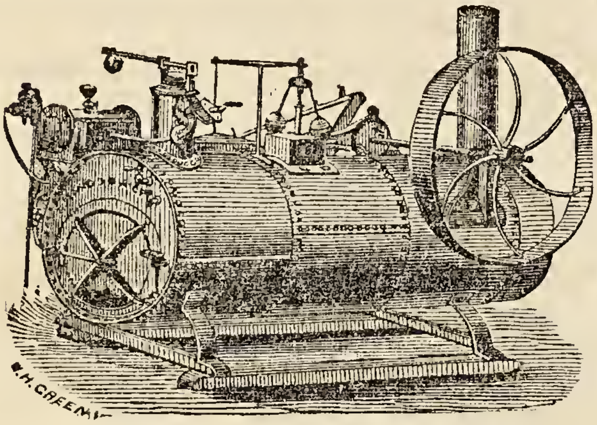
THIS is the neatest, cheapest and best Fanning Mill known, and is warranted to be second to no other made in the United States, for durability, simplicity, rapidity in doing work, or for any of the purposes for which a first class fanning mill is designed.

Only one size. Price $25. Pulley for power $1.00 extra.

A very liberal discount made to dealers, who are invited to order a sample mill. To introduce our mills into new localities, we will make a liberal allowance on the freight in all sample mills, and on those ordered by retail customers. Manufactured only by us at the Tioga-Point Agricultural works. Descriptive Circulars and Priced lists of all our machines will be sent on application by mail. Address

R. M. WELLES & BROOKS,

May 28—weow2t—m2t. Athens, Bradford Co., Pa.



Wood's Portable Steam Engine Works,

Eaton, Madison Co., N. Y.

A. N. WOOD & CO.,

Practical Machinists, and Builders of their Celebrated

PORTABLE STEAM ENGINES

For Farm and Mechanical Purposes.

WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

PRICE LIST FOR 1857.

Horse power	estimate weight	space occupied	cash price	fly-wheel diameter	face of wheel
2½	2000 lb.	4 by 5 ft.	$240	39 in.	5½ in.
3	2200 "	5 by 5 "	290	39 "	5½ "
4	2500 "	7 by 5 "	355	40 "	6 "
6	3600 "	7 by 5 "	550	44 "	7 "
8	4800 "	9 by 6½ "	700	48 "	8 "
10	6000 "	10 by 6½ "	875	60 "	8 "
12	7500 "	14 by 6½ "	1050	72 "	12 "

The above price includes boxing and delivered on board cars. A. N. WOOD & CO.

April 23—wtf—June 1—mft.

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag., by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME.--Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS, all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

R. L. ALLEN,

Feb. 26—weow&mtf 189 & 191 Water-st., New-York.

Berkshire Pigs for Sale!

WARRANTED of pure breed, and at a low figure.

WILLIAM J. PETTEE,

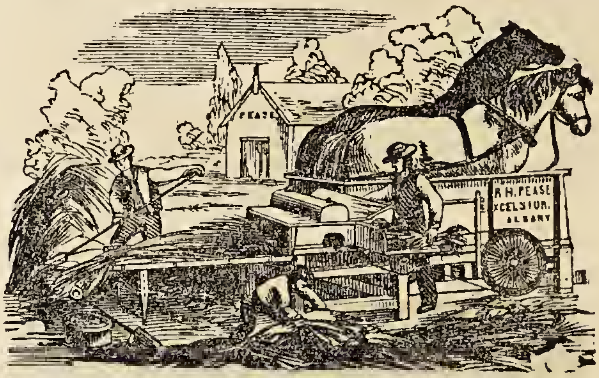
June 11—w&mtf Lakeville, Conn.

BEMENT'S

AMERICAN POULTERER'S COMPANION.

A New Edition, Enlarged and Improved. With 120 Illustrations on Wood and Stone.

Price only $1.25—a very cheap and handsome book. For sale at this office.



Excelsior Ag. Works, Albany, N. Y.

RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered. RICH'D H. PEASE.

CERTIFICATES.

Bedford Co. Tenn. Oct. 15, 1856.

We the undersigned hereby certify that we have purchased of the Agent of the Manufacturer, Richard H. Pease of Albany, New-York, his "Excelsior Horse Power and Thresher," and having used them a sufficient length of time to convince us of their utility and durability, feel no hesitancy in saying that in our opinion they are the very best of which we have any knowledge, they having performed to our entire satisfaction. Given under our hand, day and date above.

Garret Phillips,
M. L. Dismukes,
Thos. Lipscomb,
Wm. A. Allen,
J. T. Arnold,
W. W. Hastings,
James Mullins.
Benj. Garrett,
Alex. Sanders.
Wm. M. Goggin,
Alex. Eakin,
Redding George,
J. J. Koonce,
W. C. J. Brown,
H. D. Davidson.

East Greenwich, N. Y., Feb. 25, 1857.

Mr. R. H. Pease—I received the Two Horse Power, Thresher and Separator I purchased of you, and put it to work to test it. I have threshed 2,500 bushels of wheat, oats and rye with them, without a break of any kind. It works to my entire satisfaction, and I think there is no better machine made. Wm. McNeil.

May 14—w&mtf.

"Think of Living." New Volumes!

OUR ILLUSTRATED FAMILY JOURNALS.

LIFE ILLUSTRATED; a First-Class Pictorial Family Paper, devoted to News, Literature, Science, the Arts; to Entertainment, Improvement, and Progress. A large, handsome quarto. Published weekly at $2 a year. $1 for half a year.

NEW VOLUMES OF THE FOLLOWING BEGIN WITH THE JULY NUMBER:

THE WATER-CURE JOURNAL; devoted to Hydropathy, its Philosophy and Practice; Physiology, Anatomy, and the Laws of Life and Health. Illustrated, Monthly. $1 a year.

THE PHRENOLOGICAL JOURNAL; gives Practical Instructions to Learners, with Directions for the Cultivation and Improvement of Mankind. Illustrated. $1 a year.

For THREE DOLLARS all three Journals will be sent a year. Address FOWLER & WELLS,
June 25—w3tm1t 308 Broadway, New-York.

PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

R. L. ALLEN, 189 & 191 Water-st., New-York.

☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.
Feb. 26—weow&mtf

"KNOW THYSELF:" A MIRROR OF THE MIND, or, Your CHARACTER from your LIKENESS. For particulars, send a three-cent stamp to FOWLER & WELLS.
June 11—w4tm2t 308 Broadway, New-York.

NOTICE.

New-York, June 15.

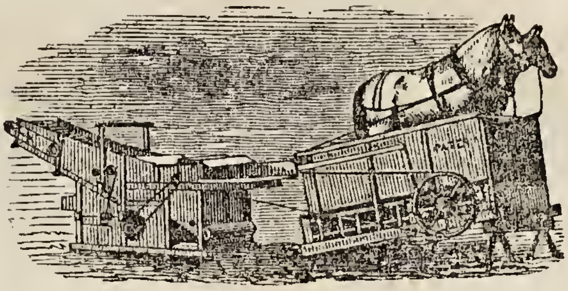
I HEREBY give notice to all whom it may concern that my Patent for Improvements in "Cotton and Hay Presses," granted March 23d, 1842, and re-issued August 14th, 1845, and was extended on the 21st day of March, 1856, for the term of seven years, for the benefit of the inventor, and as I understand that parties in the city of Albany are or have been engaged in making and selling Presses having my improvements in them, without any right or license from me to do so, this is therefore to caution the public against purchasing a Press of ANY DESCRIPTION having in it a lever or levers with a moveable fulcrum, unless the party selling such Press can show a license from me given since the 21st of March, 1856, authorizing them to use my invention.

I shall CERTAINLY use all possible means to protect my interest in this improvement, and all violations of my vested rights will be prosecuted wherever found, whether in making, selling or using my invention.

It will not avail to call the Press by another name or to seek to cover it up by other patents. If any part of my invention is used in any Press, the parties making, selling or using the same are liable to me for damages, and, besides, where my invention or any part thereof is used, all parties are liable in every instance to a fine of One Hundred Dollars, if my name and the date of the patent is not marked plainly upon it.

The so-called ' Dedericks's Patent Parallel Lever Press," which is or was recently made by Deering & Co., of Albany, N. Y., is a palpable infringement of my patent, having two of my movable fulcrum levers connected together. Such Presses were made by me as early as 1847, and the same Presses are still in use in South Carolina and Alabama for pressing cotton; therefore any patent recently issued for that arrangement is valueless, because the Patent Law was designed for the benefit of the original inventor, provided application is made within two years of the first public use of the invention, in default of which neither he or any subsequent applicant is legally entitled to a patent, it being by the Patent Laws abandoned to the public.

EMERY BROTHERS, of Albany, N. Y., have purchased the exclusive Right for the State of New-York, with the privilege of selling into any territory of the United States for the term of the Patent; and all others are forbidden to make or sell said Machines under penalty of suit for damages for same. S. W. BULLOCK, Patentee and Inventor of the Movable Fulcrum
July 2—w&m1t Wheel or Lever Press.



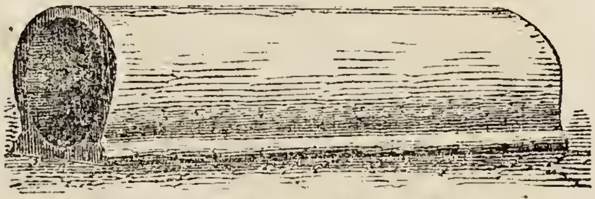
THE SCHENECTADY AG. WORKS,

Manufacture Improved Railway Horse Powers, Threshers and Separators, Threshers and Winnowers Combined Clover Hullers, and Sawing Machines.

THE undersigned having been over twenty years engaged in building Horse Powers and Threshing Machines, feel confident from past experience and the numerons testimonials we are receiving from all parts of the country, of the superiority of our Machines, that we can give satisfaction to all who may favor us with their orders. Our HORSE POWERS are made substantial, and so geared that it requires the team to travel only about 1¾ miles per hour, thereby making them suitable to work either horses or cattle on them. Our THRESHERS and THRESHERS AND WINNOWERS, are so constructed as to discharge all the grain and dust through the Machine, and not into the feeder's face as is usual with other kinds. The Thresher and Winnower has a revolving wire separator, which does the work more perfect than can be done any other way.

The SEPARATOR (riddle) has a fork or straw-shaker, which shakes the grain out of the straw as it passes from the Thresher.

We warrant these Machines to suit the purchaser upon trial, or they can be returned and the money will be refunded. G. WESTINGHOUSE & CO.,
March 5—woam&m5t Schenectady, N. Y.



New-York State Tile Works,

On the Western Plank Road, near the Orphan Asylum, Albany, N. Y.

THE subscriber having purchased the Drain Tile works of Artcher & Co., offers for sale the following sized Tile:

HORSE SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches calibre,	$12	per 1000
3½ " "	15	"
4½ " "	18	"
5½ " "	40	"
6½ " "	60	"
8 " "	80	"

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches calibre,	$12	per 1000
3 " "	18	"
4 " "	40	"
5 " "	60	"
6 " "	80	"

I warrant every Tile perfectly sound, and harder and better Tile than any before made in Albany. If not, the purchaser need not pay for them. I will also undertake draining to any amount, and at any place, and furnish Tile for the same, and ask no pay until the employer is perfectly satisfied with the result. I am also willing to render my services in laying out drains free of charge, to any one who purchases Tile of me.

A liberal per centage will be allowed on orders for 10,000 or more. Cartage free. Gentlemen, your patronage is respectfully solicited. Orders from all parts thankfully received and promptly attended to.

GEO. ALDERSON, Albany, N. Y.,
(Late Artcher & Co.) Office 63 Quay Street.
EMERY BROTHERS, Agents, Corner State and Green Sts.
April 30—w4t&eow3ms—m6t.

Contents of this Number.

THE FARM.

Clover and other Grasses for Hay, 233
Quantity and Value of Manure of Cattle, 234
Bones Partially Dissolved by Fermentation, 234
Pull your Winter Cress, by S. E. TODD, 235
To Save Clover Hay, by G. HOWATT, 235
Why don't the Corn Grow? by J. WALLACE, 236
Smut on the Onion, by J. W. PROCTOR, 236
Compost Heaps, 236
Care of Tools, 237
Lightning Conductors, by E. J. McCARTHY, 240
Manures—Muck, Peat, &c., 241
Work-Shops and Stormy Days, 242
Salting Hay—Two Dangers Attending it, 243
Stacking Hay and Grain, by G. HOWATT, 243
Entomology—Grasshoppers, by Dr. FITCH, 245
Sugar and Shade, by ISAAC CHILD, 246
Culture of Cabbage, by JAS. LEVESQUE, Jr., 247
U. S. Ag. Society's New Medal, 248
Plans of Houses, 249
Notes about the West—I., 250
Trial of Reapers and Mowers by the Maryland State Ag. Society, by E. L. R., 251
  by Ohio State Board of Agriculture, 251
  by Skaneateles Farmers' Club, 251
  by United States Ag. Society, 252
Notes about the West—No. 2, 256
Crops, &c., in Western New-York, 257
Inquiries and Answers, 254
Notes for the Month, 258

DOMESTIC ECONOMY.

To Cook Sweet Corn, 247
Washing Fluid, by E. MAXSON, 255

THE HORTICULTURIST.

Pie Plant and Strawberries, 236
Transplanting Strawberries in Summer, 237
Hints for the Horticulturist, 238
Overhanging Fruit, 238
Horticultural Items, 238
Cranberries from Seed, by D. L. HALSEY, 247
Care of Trees, 248
The Strawberry Crop, 250
Top Onions, 255

THE GRAZIER.

Improved Breeds and High Prices, by C. M. C., 239
Early Beef in Wisconsin, by J. SMITH, 240
Chester Co. Hogs, by J. L. D., 240
Early Beef in Wisconsin, by J. SMITH, 240
Further Experience with Wolf Teeth, by L. A. COOKE, 243
Feeding Cows and Production of Milk, 244
Bone Spavin, 244
Weight of another Colt, by E. M. McC., 244
Cure for Warts on Animals, by L. L. MERRILL, 247

ILLUSTRATIONS.

U. S. Ag. Society's Medal, 248
Plans of Houses, 249

GOOSEBERRY PLANTS.

GENUINE HOUGHTON'S Seedling—the only variety worth cultivating. Railroad facilities for sending in all directions. Furnished by the dozen or thousand. Orders should be sent in NOW. C. B. MURRAY,
July 30—m1tw2t 20 Mile Stand, Warren Co., Ohio.

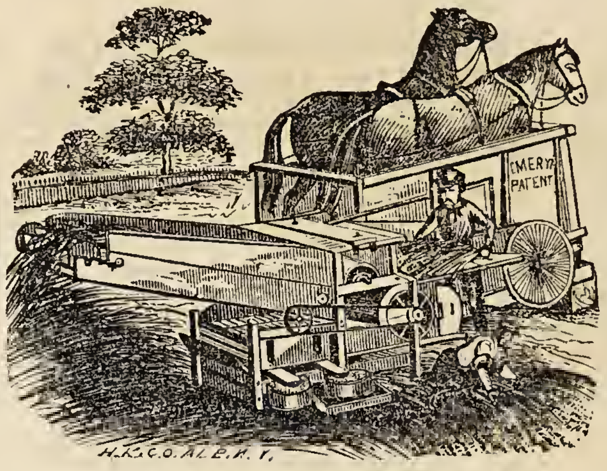
Premium Strawberries, Bulbous Roots, &c.

WM. R. PRINCE & Co., Flushing. New Catalogue of Strawberries for 1857, comprising the finest collection ever offered, with greatly reduced prices. Large quantities for market fields at very low rates.

Also New Catalogue of Bulbous Flowers, Dahlias, Pæonias, &c. New Catalogue of Roses, Carnations, Phlox, Chrysanthemums, and all other Flowering Plants, will be sent gratis to applicants who enclose stamps.
July 30—w2tm1t.*

PERUVIAN GUANO,
Government Weight and Brand.
COLUMBIAN GUANO,
Government Weight and Brand.
SUPERPHOSPHATE OF LIME.
MANIPULATED GUANO NUMBER 1.
BONE DUST.

For sale by A. LONGETT, 34 Cliff Street,
Aug. 1—m3t. Corner of Fulton, New-York



Emery's Patent Rail Road Horse Power,

ACKNOWLEDGED BY EVERY AGRICULTURAL SOCIETY and Association for Improvement of Agricultural Machinery, to be superior in plan of construction and ease of operation, as utility in being adapted to all the various forces and velocities where desirable to apply the power of horses.

This power is unequalled by any other in the country in its workmanship, and much better finished this season than heretofore.

Their Thresher and Separator also has been improved, by making them all both right and left handed, and using an iron balance band wheel for crank which drives the Separator, and long sill or base timber into which the bottom of legs of its frame are made permanent. These improvements, together with iron heads instead of wood, to their cylinders, and their cylinders being balanced under a velocity double what is required for threshing, makes them more valuable and efficient.

Their THRESHER and CLEANER as now constructed, is the most desirable machine ever invented for the purpose of threshing and cleaning grain at one operation, and at the same time adapted for two horses. This force is found to be capable of threshing and cleaning, with the same ease to men and team, the same amount of grain as can be threshed by the ordinary Thresher and Separator, and to do it in as good style as any of the large machines in use in the country.

It is entirely free from objections which obtain generally in such machines. It saves all the grain, will not break the kernel, cleans at one operation, delivers grain on either side as desired, and may be driven and fed from either right or left hand side.

The other machines manufactured by them are warranted superior to the best of other makers, and in this connection they would state that their Horse Powers, their Threshers or their Cleaners, are worth to the farmer using the same, 50 per cent more than any other makers, and sold at even prices, in this country.

Full Descriptive Illustrated Priced Catalogues furnished gratis to all applicants enclosing a three cent postage stamp to pay its postage.

Agents solicited, and liberal commissions made on all sales. EMERY BROTHERS,
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THE CULTIVATOR.
FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES

VOL. V. ALBANY, SEPTEMBER, 1857. No. IX.

A Day's Notes near Geneva.

In the year 1833, Mr. PATRICK SHIRRIFF,, a practical farmer from East Lothian, in Great Britain,—than which there is said to be no better wheat district in either Scotland or England—made an extended tour through this country. When at Geneva he was introduced to Mr. JOHN JOHNSTON, and in the book giving an account of his tour, published after his return home, he speaks as follows of what he saw:—

> "This season he (Mr. J.) has 60 acres in wheat, equal to any crop of similar extent I ever examined. His system is to sow clover amongst wheat, which affords good pasturage in autumn, and is fed off in the following spring; the land is plowed in the end of June, and, after an imperfect fallowing, sown with wheat in autumn. * * * Mr. J——— applies fifty heaped Winchester bushels of lime to an acre, which costs nine cents per bushel. Gypsum costs 15 cents per bushel, and is only used for clover and Indian corn. * * * Half a bushel is sufficient for an acre, and imparts an improved appearance to the crop in four days. * * * Mr. J.'s cows are beautiful animals, and very fat."

What was thus written nearly a quarter of a century ago, applies almost word for word to the farming of Mr. Johnston, as we found it now. He has, however, although still hale and active, made an arrangement with a tenant to farm under his supervision and direction, and the past year has proved the new arrangement one of mutual satisfaction and profit.

It will be difficult to say much of what we saw without running a risk of repeating what is already recorded in the back volumes of this journal. Mr. Johnston has 300 acres of a stiff and naturally wet soil, which by means so often advocated in print that the most listless of readers can hardly be entirely ignorant of their nature—he has brought up from comparative sterility to the production of crops unexcelled, and we think scarcely equalled, in Western New-York. Yet, as he himself remarked in a recent communication, it is absolutely surprising that no more are induced, by the publication of so apparently simple a mode of renovating the soil, to try it, even if upon a small scale. Some of his neighbors, after watching and often laughing at him for thirty-six years, are gradually following his example; more, however, persist in calling him merely a very "lucky" man. Their own winter-killed and stunted grain, their bare pastures and thistle-grown meadows, are sufficient evidence that similar "luck" has never lighted on their domains.

DRAINING has been very "lucky" in Mr. Johnston's hands. As the pioneer in the introduction of tile under-drains, until they now form a prominent feature in American husbandry, he would in England probably have received, ere this, a valuable testimonial from his fellow farmers. His present demonstration of their effective and profitable use could not be more complete. Beginning—as every new idea should at first be received in practice—at a moderate extent, he satisfied himself that draining was an operation, on a soil like his, paying its own way, and permanently adding to the productiveness of the land; and, since these careful opening experiments, he has gone on until the "crockery" under his fields may now be numbered by hundreds of thousands; until spots where man or beast would before mire, are now firm enough to bear the heaviest load, and, what is more, from absolute unproductiveness have become the most productive of all.

LIME is also in a measure synonymous with Mr. Johnston's "luck." He has used it on a large part of his farm at the average rate mentioned in the above extract, although in some cases putting on considerably more—indeed on one or two acres the quantity was a hundred bushels each. While the effect is apparently a permanent one, we understood that the increase in the first crop would more than pay its cost. This is another of those instances so puzzling to science, in which burnt lime works wonders on a *limestone soil*—the earth of which not only rests on limestone, but already contains lime as a prominent ingredient. Mr. J. began with lime, as with draining, in a small way, until its effects were thoroughly tested; he is now satisfied that the $25 to $30 an acre which the tiles and lime cost, have been one of the best expenditures he ever made. Ashes he has not found to pay. Salt he has used largely at the rate of a barrel to the acre; it brings the wheat to earlier maturity, and gives a bright, stiff straw. Plaster he applies largely upon corn, also on timothy and clover, at the general rate of about a bushel to the acre.

But in the *home-manufacture of manures*, Mr. J. has perhaps been more "lucky" than in anything else. This it is that enables him to raise so large crops of corn; to keep up his crops of wheat; to get the greatest returns from the money buried in the tile, and sown broadcast in the lime. We found extensive manure heaps, the product of last winter's feeding, awaiting application this fall. The yards in which the cattle and sheep are wintered are largely supplied with straw, and the well-decomposed mass is used at the rate of twenty to twenty-five large two-horse wagon loads to the acre, applied to those grass lands in the fall which are to be plowed for corn in the spring. This gives a surprising crop of corn, and makes the land even too rich for wheat.

We should here say that Mr. Johnston's soil, which is a stiff clay—now, from the addition of manure, good drainage, and long and often repeated working, brought more into the condition of a clayey loam—is not what is called a *corn soil;* it is just the one, however, for wheat. Some fields have grown wheat every alternate year for the 36 Mr. J. has tilled them; every other year lying in fallow, and the yield ranging from 20 to 40 bushels per acre, and for the last eight years averaging, after deducting for the frequent and severe ravages of the midge, twenty-five.

Reference was made in our note about the crops last week, to Mr. J.'s field of corn. It contains twenty-three acres, and with the exception of some small lots in favored situations, is said to be the best between Buffalo and Albany. This field was wheat and fallow alternately from 1822, for 30 years. In 1852, the trial of implements was held at Geneva; the wheat crop on it that year was very good, as many strangers who took the trouble to drive out expressly to see it, may remember. While in wheat, this field was several times manured—once with 40 bushels unslacked lime per acre. Mr. J.'s subsequent treatment of it illustrates well his views of the rotation best suited to his circumstances. This field was seeded with clover and timothy, hay was cut from it for three years, and in 1856 it was manured in the fall with over 22 two-horse wagon loads to the acre of the richest manure, well rotted, made from sheep and cattle fed on Indian corn and oil-cake meal. After this corn crop it is proposed to take two crops of oats, or one of oats and one of barley, before again putting it in wheat, as Mr. J. considers it too rich for the last named crop without reducing it by the growth of the others.

Several ideas advanced by Mr. J. at different times have given rise to considerable controversy. The mode he has found most profitable, of applying manures in the fall, has been the subject of much writing during the last year. He takes a view of the wheat crop which will be considered not less remarkable by many, and which must attract the attention of all who affirm that wheat growing ere long will have to be given up in many parts of the country. He thinks it *the least exhausting crop he raises*—clover seed the most exhausting. On these points we shall be glad to receive the experience of others. Are good farmers generally disposed to dispute the opinion?

There are a few particulars further, in relation to out-door matters, which we wish to mention before going into yonder feeding yards and barns. First about

The Corn Crop.—Mr. J. uses the planter manufactured by Emery Bros. of this city, of which he expresses a high opinion. His field this year is in hills three feet each way, but we understood that he prefers the mode he has generally employed, of planting in drills three feet four inches apart, and one stalk about every six inches in the row; he has found the yield of corn by this method greater, and that of stalks increased about one-third. Plaster he sows broadcast over the field, with one of Seymour's excellent machines. He cultivates as soon as the leaves are out of ground, and three times subsequently at intervals of 10 days or so, according to circumstances, and would go through with the field once more if there was time. During twelve years, he has had from 20 to 40 acres annually in corn, and has averaged 50 bushels of 60 lbs. per bushel to the acre for the whole 12 years—pretty good for a farm which has no *corn soil*, and giving further evidence of the "luck," in good management and careful cultivation.

In connection we may state that a field of ten acres, almost actually a swamp, purchased by Mr. J. ten years ago, for the sake of securing an outlet for some drains, was itself thoroughly drained, and the next year he took a crop of corn from it which paid him back both the cost of the land and the cost of the drainage.

The Hay Crops on Mr. Johnston's farm are very fine. They are mostly timothy, with some natural grasses and a little clover intermingling. This mixture he considers as good for dairy cows as pure clover, the superiority of which over pure timothy* his experience leads him to admit. He expected to finish cutting, nearly, by the 18th inst. The crop this year must reach two and a half tons to the acre—certainly a finer one we never saw—the heads standing higher and more thickly than much of the wheat one sees, while the undergrowth, if we may so call it, of juicy leaves and stalks, is so compact that a good mowing machine and pair of stout horses find it all they can well manage. Mr. J.'s average hay-crop has been two tons to the acre. It may be mentioned in connection that he has a fine barometer, which has several times been of far more service than its price.

The effect of drainage, Mr. J. thinks is not so perceptible to the eye upon the grass crop, as on grain; the great benefit resulting from it, being an increased *thickness* upon the ground. Wet lands shoot up a rank growth, but a well drained field is covered with a thickly woven turf, and yields a proportionably greater crop.

The Wheat Crop.—Mr. J. has this year 50 acres of splendid wheat, which, with that of his next neighbor, Mr. Swan, (who has 66 acres in one field,) is altogether superior to any thing within the writer's experience. Certainly no farmer could desire better. Mr. J. would consider it good for plump 40 bushels, but the weevil is in it, and must have done great injury. We suppose at the time this reaches our readers it will mostly have been harvested and the results made known.

Mr. J.'s experience on the much mooted chess question, although before referred to in our columns, may still be of interest, especially as we have lately received several letters advocating the theory of transmutation. When he first came to this country he was not disposed to credit the story that wheat would turn to chess, but a field of that grain in his neighborhood which was badly winter-killed, came up so fully and unmistakably *chess*, that he could not resist the evidence, and was converted on it, as many others have been, to firm belief in the possibility and existence of transmutation. But when the subject was discussed in the old *Genesee Farmer*, he was led to look into the matter more deeply, and finally determined that no wheat of his should be subject to any such vagaries. He would *sow no more chess seed!* Now he has not raised a wine-glassful of chess in more than twenty years. Before that he "had lots of it, and was sure that wheat turned into chess."

His mode of cleaning seed wheat is as follows:—

> "To clean all the chess out, take the riddles out of the fanning mill, leaving the screen in—take off the rod that shakes the riddles and screen; pour the wheat slowly into the hopper with a basket or a half-bushel; turn the mill a little quicker than for ordinary cleaning, and every grain of chess will be blown out, unless where three chess seeds stick together, which is sometimes the case with the top seeds."

With this simple preventive he has shown, quite as conclusively as is possible in any other way, that all chess springs from its own seed and not from the wheat. When will other farmers give up trying to prove the existence of transmutation, instead of endeavoring to effect the non-existence of chess in their own fields?

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* As referred to in a note on page 64 of last week's Co. Gent., giving the results of some experiments by Col. Capron.

During the year of fallow which has generally alternated with Mr. J.'s wheat crops, he is particular to keep the land well worked and free from weeds, plowing at least three times in the season. Quack grass, as it is commonly called, many farmers find it very difficult to exterminate; but he says there is no trouble on drained land. If you kill it then, it *stays killed*—on wet land, it seems endowed with the nine lives of a cat—or more.

It may be of interest to mention the division of his land among the different crops. Of 300 acres, 50 are in wheat, 23 in corn, 23 in oats, 60 in hay, 64 in fallow, and the balance, with the exception of 30 in wood, are devoted to pasture.

But one of the main sources of profit for Mr. Johnston, both as supplying in large quantities the best manure, and thus preserving and increasing the fertility of his land—and as furnishing a market for much that he raises—is

THE FEEDING OF CATTLE AND SHEEP.

He has very extensive farm buildings; we give on p. 75 a cut representing one set of them, with yards, sheds, &c., the dimensions of which are given with the description—the drawing being on the scale of nearly 50 feet to the inch. Beside this range of buildings he has two others similar, although not quite so large. The plan of their construction may be of service to others.

Cattle, Mr. J. selects with great care, and his success proves the excellence of his judgment. He determines much by the *handling* qualities of the animal, choosing for fattening purposes, one that possesses a "moderately thick, mellow, elastic hide, thickly covered with soft, wavy hair." As he thinks it wiser to grow 300 bushels of wheat on 10 acres, rather than on 30, so he finds it pay far better to secure such a constitution as shall attach 800 pounds of flesh to one stomach, than to have two digestive systems at work at his mangers, and both net him only a thousand pounds. His long practice has given him a great degree of skill.

Of sheep he has been a still larger buyer. As a general thing they prove more profitable—always when the price per pound live weight is the same. A four year old steer in pasture, his experience proves about equal to seven sheep. But when they are stalled or yarded the former consumes more than the latter. The sheep will fatten well on a pound per day each of oil meal and what straw they want—the steer will require 8 to 12 pounds of oil meal daily, and not a little of the best hay. Then the pelt of the one will sell for $2—those of the seven amounting to $14, while the hide of the latter will only bring about six.

The period of feeding is about one hundred days, commencing from the middle of November to the 10th of December. Oil cake Mr. J. purchases by contract and by paying the cash and taking large quantities secures it at lower rates than might otherwise be the case—generally getting it slightly less than $30 per ton. He proposes to contract for thirty tons for next winter's use. He has tried feeeding corn and cob ground together, but considers the cob useless if not injurious—especially to sheep, which digest everything they take into their stomachs.

Most of the hay the cattle eat is taken from feeding boxes in the yards. To get these sufficiently light to be portable, and yet strong enough to bear hard usage, is a great desideratum. Mr. J. has effected this purpose admirably. The cut (fig. 1) shows one side of the feeding box he contrived and has used entirely for many years, drawn on a scale of 10 feet to the inch. It is six feet square and six in hight. A bottom may be laid in if desired, of loose boards resting along the horizontal scantling shown at *b e*, but Mr. J. generally fills them with straw to this level and then puts hay on top; the side openings *a d c*, are protected by a strip of wood on one side of the siding boards and a light bar of iron on the other—these being pinned on by bolts and screws, the heads of which are shown by dots. These are large enough for four cattle to feed from at once without quarreling, will last for many years, and have proved in every respect just what was wanted. We should add that the four corner posts are of wood 4 inches square.

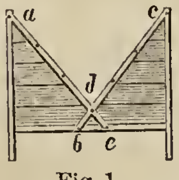


Fig. 1.

But decidedly the most compact, convenient, and inexpensive mode of stalling we ever saw, is that contrived and long used by Mr. J. The cut at the top of page 268 shows at *J*, the ground plan of a line of stalls. Fig. 2 represents the front of these stalls extending along the line just above the letter *J* in figure 4; the openings represented in fig. 2 at *d d* look through into the manger, the width of which is shown by the dotted line below *I*, in figure 4. The sides of the stalls, *c c*, are gates turning on the stanchions that support them, and here represented wide open. One animal is driven in, the gate shut upon him, and he stands in a space 8 feet by 3, with his side to the gate, (shown in fig. 3,) putting his head through the opening (*d*, fig. 2,) into the manger (*b*, fig. 3.) Then another follows; the gate is shut upon him, and in less than a week the cattle will learn to go in of their own accord, while the shutting of the gate is much less trouble, more secure, and leaves far less opportunity for their fighting, than any mode of tying. Each animal may stand, lie down, or eat, without molestation by the others, or inconvenience of any kind to himself. The distance the front of the stalls is boarded up, is shown in fig. 2. The manger (*b*, fig. 3,) is 3½ feet wide, and the avenue beyond, *a*, 6 feet, for convenience in feeding. The construction of the manger is shown at *b*, so that the food shall slide toward the bottom, but not be drawn into the stall.

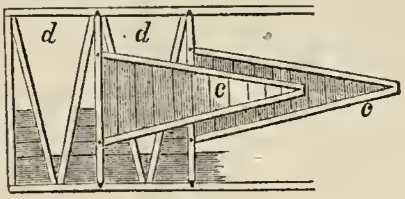


Fig. 2.

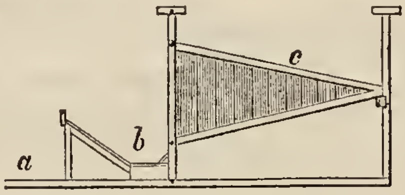


Fig. 3.

The animals are put into these stalls morning and night for several hours, spending the remainder of the time in the sheds and yards at will, where they are supplied with water, and, as well as in the stalls, with an abundance of straw for litter, both as conducing to their own cleanliness and comfort, and, more particularly, for the increased amount and value of the manure thus made. The straw absorbs a considerable portion of the liquids of the manure, but Mr. J. says that if he were a younger man, he would immediately construct capacious tanks, and save it all. The manure is heaped in the open air, where it lies generally undisturbed, although we believe he sometimes considers it well to turn the heaps over once, until the time of its application to the soil, from the 20th of September to the 10th of October, when it is thoroughly decomposed and in excellent order.

We may pause here long enough to tell a story of one of Mr. J.'s neighbors, who is well known as a *first rate* farmer, but who never could so far overcome his views of what reason and theory apparently taught him as to coincide in Mr. J.'s autumn application of manures. We rode over to see his place, and found

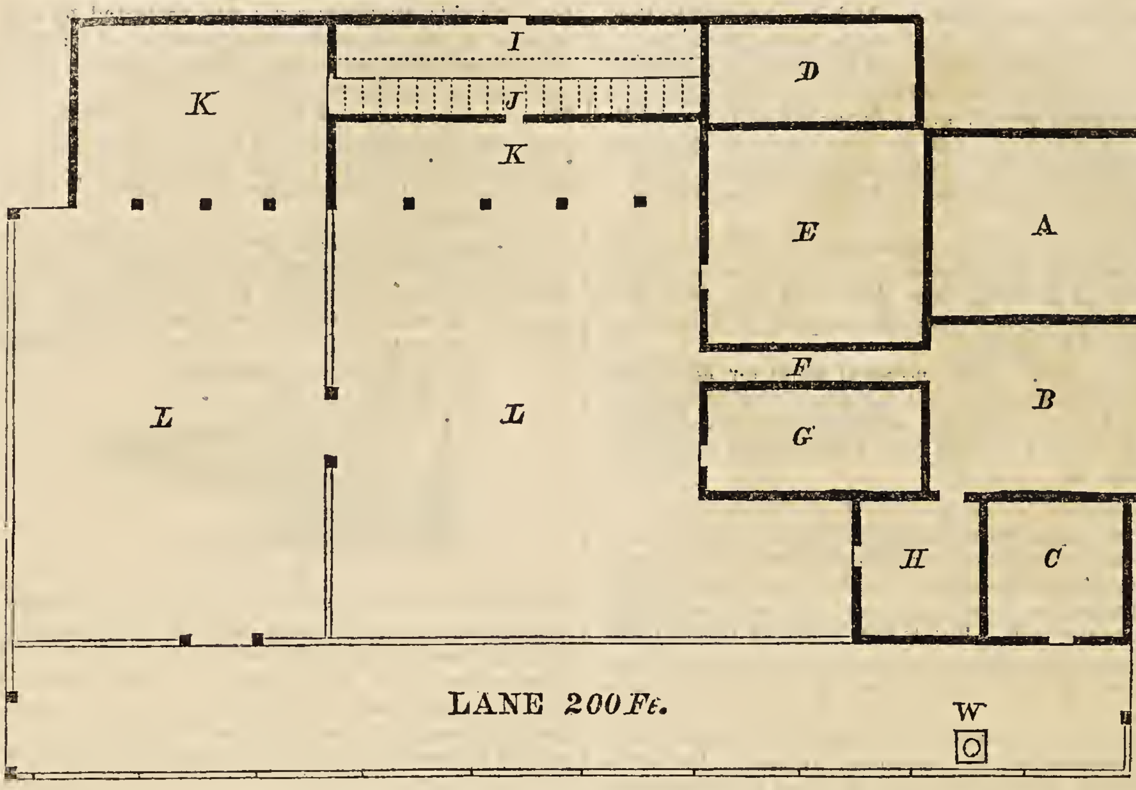


Fig. 4—One Range of Mr. Johnston's Farm Buildings.

Description.—*A*, Tool Room, with wheat in the sheaf on second story, 45 ft. square.

B, Granary, 45 by 20, with grain bins on the outer side and on the side next to *A*. The room above is devoted to wheat in the sheaf, and contains also the threshing machine, the grain from which passes down into a fanning mill beneath (in *B*, near the side next to *C*.)

C is 28 feet square, and contains the sweep horse power, which moves the thresher in the room above *B*, as well as the fanning mill in *B*, from which last apartment the chaff is carried into the room

H, 20 ft. by 28, and the straw into

G, where it is very convenient for use in the yards, into which this room opens.

D, Hay barn, 34 by 18 feet.

E, Another straw room, 34 by nearly 50 feet.

F, Gangway to granary.

W, Well.

I, Gangway six feet wide, for feeding—the dotted line represents the mangers to receive the feed of the animals in the stalls at

J, These stalls are eight feet by three.

K, *K*, Are open sheds.

L, *L*, Yards in which the cattle feed from racks represented below, as sheep from troughs.

In the engraving the position of doors and of the gates in the fences (represented by open double lines,) is shown so plainly as to need no explanation.

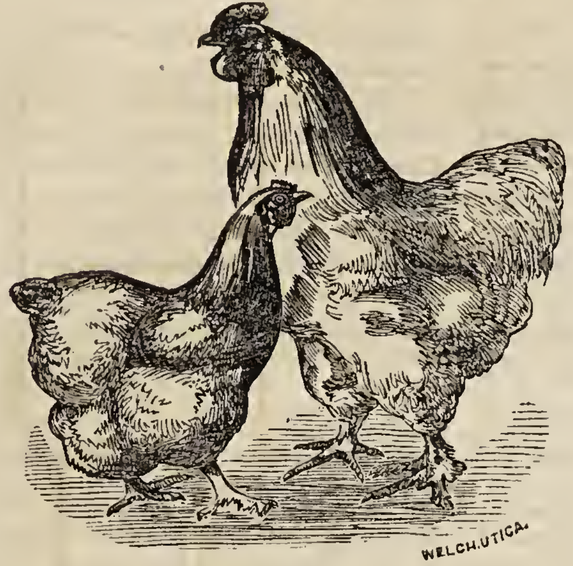
---

that of two fields of corn upon it, one was decidedly in advance and of better color and promise than the other. Mr. J. inquired the reason. "Well, if it must be confessed, Mr. Johnston," was the reply, "*the manure on the best piece was applied in the fall.*" Friend J. naturally considers this something of a triumph of his system, but his neighbor is not disposed to admit it as such until still further trials.

Of cattle Mr. J. generally buys about 40 three or four year old steers the last of November, which he calculates to sell in February, when he takes another lot of as many more, which are fed moderately, to put them in good condition to be turned to the first grass, and they become fat as can be desired in July. The former lot are allowed from six to eight quarts of corn or oil-cake meal per day, according to the quality of the hay, and the latter about four quarts—both having access to all the hay they want. The quantity of the manure thus made, and the results of its application can better be seen by visiting Mr. J.'s fields and inspecting his crops, than in any other way.

It is said that the old race of Scotch divines, after running up the heads of their discourses to *seventeenthly*, or thereabouts, always added nearly as many more by way of "practical improvements." With greater mercy in this present instance, we desire to present but six:

1. Farmer, think for yourself! Drains and drain tile were new things both here and abroad, when friend Johnston first experimented with them; lime was almost as much so. But he has gone ahead in these and other respects for himself, leaving others to follow.
2. Raise no crop that don't beat those of your neighbors. This may be rather stronger than our meaning, which simply is, Be sufficiently ambitious; determine to equal, endeavor to excel others in your manner of farming, and all its results.
3. Cultivate your soil thoroughly. One main object of all Mr. Johnston's drains is to prevent the baking of the soil into inseparable clods, to keep it friable, while he labors for the same end by frequent use of the plow, the cultivator and the hoe. Economise manures.
4. Avail yourselves of all the labor saving machinery you can. Friend J. must have been among the very first in this country to construct a threshing machine. He has always made use of every implement possible to take the place of and economize human toil. Reapers, mowers, tools to till the soil and machinery to store the harvest are all found in improved forms and constant application on his farm.
5. Remember that a specific crop or so many pounds of flesh, always pay better, the smaller the field or the fewer the mouths, from which they are produced. That is, better till one acre well, than scratch over two or three. Good care of animals in the end will be most profitable.
6. Read the Agricultural Papers. Write for them. Mr. J. hailed with pleasure the first number of the old *Genesee Farmer*, and from that day to this has been one of our constant subscribers and most practical contributors. He has thus learnt the progress others were making, has adapted their suggestions and experience to his own wants, and, moreover, what he has proved good, he has labored to disseminate as widely as possible, and the benefits derived from his own skill and practice he has endeavored to confer on others.


WELCH.UTICA.

Shanghæ Fowl.

The Shanghæ fowl was originally brought from the northern part of China, particularly about the city of Shanghæ, from which it takes its name. This bird is the common domestic fowl of that part of China; but how long it has been bred there, or when first introduced, we are not able to ascertain.

The Celestials breed these birds without any regard to points, plumage, or color, being satisfied with large bodies. A missionary, who spent eight years in different portions of China, recently informed the writer that the common practice about Shanghæ is to breed together indiscriminately, smooth and feather-legged birds, as well as those of different colors. Another missionary says, "There is no difference at all between the fowls called Shanghæs and Cochin Chinas. In reality they *all* are Shanghæs. Cochin Chinese fowls are a *small, inferior* kind, not equal to the natives of the United States, and it is not believed that any have have ever been taken to America."

The editors of the "Poultry Book," lately published in London, quote from a letter they received from Mr. Robert Fortune, who has passed many years in various parts of China, as follows: "I firmly believe that what are called 'Cochin Chinas' and 'Shanghæs,' are one and the same. The Shanghæ breed seems to be more common about Shanghæ than anywhere else in the north; but I find it all over the low country of that part of China. The southern breeds have long been well known to ship captains and English residents; but there is nothing very marked in their character. The Shanghæ breed occurs both with feathered and unfeathered legs, but more frequently with unfeathered."

Our first informant sustains the statement of Mr. Fortune in respect to the fowls of Southern China, for he says that he travelled quite extensively in this portion of China, and that during three years labors there the only large fowls he saw were a few that a French gentleman had just brought down from the north.

From such competent and disinterested testimony, we are compelled to conclude that all such names as 'Cochin China,' 'Royal Cochin China,' 'Imperial Chinese,' 'Hong Kong,' 'Hong Ho,' 'Bramah Pootra,' and numerous others, should all be known by the family name of Shanghæ, and be classed only by color, as white, buff, black or red Shanghæs.

Some forty years since the ancestors of a large mixed tribe of fowls were brought to this country from China and adjacent islands, and since have mainly been bred in and about Philadelphia, bearing the name of 'Bucks County Fowl,' and other aliases. Most of these were smooth legged, but a few were more or less feathered.

The first of our late Shanghæ importations was made in the spring of 1847, and since that time a Shanghæ tide has flowed and ebbed over the American continent. It is low tide now, where it is to be hoped it will long remain. Shanghæs were first introduced into England in 1845, by a present made to the Queen. The English have usually called all large China fowls 'Cochin Chinas,' but of late have adopted the term Shanghæ.

The Shanghæ cock is a large, bold, upright bird, strongly distinguished for the length, loudness, hoarseness, and awkwardness of his half guttural crow. Most of the sub-varieties have large, single, serrated combs, the top running considerably beyond its point of attachment to the head. He has a strong and slightly curved beak. The eye is rather small, bright and prominent; face bright red; wattles, large, thin and pendant; ear-lobes very long, loose, and folded forward like a second wattle. His neck is about nine inches long, and is somewhat arched; wings short, rounded outwards, their shoulders concealed in the breast-feathers, and their tips covered by the body-feathers and the saddle-hackle. His breast is broad, but wanting in fulness; the thighs are wide apart, large, comparatively short, smooth in some, in others heavily feathered quite down to the knees; shanks should be short, and, with the booted, more or less feathered down the outer edge, quite to the end of the outer toe; the stern is densely covered with long downy feathers, technically called "fluff," well rounded out; the hackle, both of neck and saddle, is long and abundant; while the tail is short and sometimes covered by the long saddle-feathers. The weight of a full grown bird is from ten to twelve pounds, while a few have weighed more.

The hen agrees in general character with her liege lord, but is two or three pounds lighter. Comb and wattles smaller; body deeper, with more breast; 'fluff' over the hips and stern softer and more plentiful; saddle-feathers so abundant as to form a kind of arch from the back to the tail, frequently extending so far up the tail as to make it appear very short.

The legs of both sexes should be yellow, though we have seen some very fine white birds with a greenish-blue leg, and superior black ones with dark legs. These birds should be low on the legs, like our cut, while they are generally quite too tall.

The principal subvarieties of the Shanghæ family are, the white, the buff, the cinnamon, the partridge colored, the gray, or Brahma Pootra of a few writers, the Dominique and the Black.

The white birds are lighter in weight than any of their darker relatives, but we once thought exceeded any of the others for laying qualities. They are less hardy than the colored birds, and, as for eating, none of the Shanghæs, in our judgment, are as good as the common domestic fowl.

The buffs have been more numerously bred than any other variety, and have furnished more good birds than any other color. Most of these have black tails, and a few of the outer wing quills are also black; while some have red, others yellow, and others neck-hackles striped with black.

The cinnamons are poorly represented in this country, both in respect to number and quality.

The partridge or grouse-colored Shanghæs are also scarce in this country, though we have seen some very fine birds of this kind. The hens have more breast than most of the others.

The dominique is perfectly represented in color by our domestic dominique or hawk-colored fowl. Excepting a slight tinge of red upon the wing-coverts of the cock, both sexes are quite uniformly marked all over, having the ground of each feather light blue, and quite evenly barred or pencilled with a dark blue and gray.

By the gray sub-variety we include only that class of light colored birds that a few have wrongfully called Brahma Pootra, while S. O. Hatch, Esq., one of the early breeders, uniformly called them 'Chittagong,' as is supposed by the 'knowing' from their relatives, the Chittagongs of Philadelphia. A gentleman near this city (Albany) has been a breeder of the Philadelphia bird for more than twenty years, and when the 'Brahma Pootras' came into vogue breeders themselves could not tell the difference between those raised from his old stock or the best modern birds. In passing, it is but just to say that these birds threw out some very fancy colored fowls, having pure white or creamy white bodies, dark red hackles, outer wing-quills black, and black tails. Some have single and others 'pea combs.' These birds, when kept clean, make a fine appearance on a large, smooth, green lawn. But they cannot be bred of uniform colors, like the Creoles and many others.

Black Shanghæs are yet scarce, though we have seen some superior birds of this hue. Says a late English writer, "there is one peculiarity about them, that the cocks, though perfectly pure in color till about six months old, after that age become brown in the hackle, frequently show red feathers in the wings, and are often found on close examination to have white under-feathers, and others barred with white." The writer has seen some entirely black—the hens should always be. Some have dark legs, though yellow legged birds are preferred.

Having briefly described the leading sub-varieties of the Shanghæ family, it only remains to make a few practical remarks about pairing and breeding.

None but healthy birds must ever be mated for breeding purposes. Birds from two to four years of age produce stronger and larger chicks than young pullets. Both sexes should possess the color desired in the progeny; but to the hen we must mainly look for size.

Shanghæs, as other birds, should not be bred "in and-in" too much. Indeed too much care cannot be taken to avoid this deteriorating practice. Such a course is sure to reduce the size, weaken the constitution, and frequently changes the form and colors of the progeny. Cocks or hens should be exchanged every year or two, but great care should be used in making these exchanges, lest the flock be impaired by impure blood.

These hens lay well in winter with good keep, but are excelled by many others in summer. They are most inveterate sitters, so that, unless very highly fed during the warm season, it is almost impossible to keep them from sitting, thus losing much of their time.

These fowls are very liable to have the roup, especially in a climate as cold as this. This disease is contagious, and all birds attacked with it should be removed from the henery at once.

The Shanghæs are great consumers, and when dressed afford a large amount of offal. Old fowls full-fed become very fat, but their flesh is rank and unsavory. The breeder will find it very difficult to fatten the chicks before eight or ten months of age. They do not reach their full weight until more than a year old. This is a very serious objection as a market fowl. For market it is better to cross them with common fowls.

Roosting perches for Shanghæs should not be more than eighteen inches high, and about two feet apart.

These fowls require careful protection in winter, or they will suffer from the cold. A correspondent, residing as far south as Kentucky, recently informed us that during the last two winters he had lost several of his best Shanghæs by freezing. Others have made the same complaint.

Were we asked our advice, we should say to farmers, raise Turkeys instead of these uncouth Shanghæs; for the Turkey will consume but little, if any more in winter, less in summer, is less in the way, and brings a much better price in market. If you want chickens for your table, raise the Gray Dorking; and if it is eggs that you wish, get the best strains of Spanish.

Dwarf and Standards Mixed.

I have an orchard of standard apples, set thirty feet apart, four years planted. I would like to know through the Cultivator, whether you think it would answer to plant dwarf trees between those, making the distance fifteen feet. THOS. E. GAWTHROP. *Pike Co. Ind.*

In answering this inquiry we will reduce the question to figures. If the apple trees are well cultivated they will send out shoots each year at least two feet long. The trees of our correspondent, with the best treatment, supposing the shoots start a foot back from the tips of each previous shoot, will have increased a foot in diameter on each side, or two feet in all, for each year. If he has therefore managed them well, the tops are now about *eight feet* in diameter. In six years more, or by the time the dwarfs have arrived to a good size and productiveness, the apple trees will be nearly twenty feet in diameter. As a proof that this estimate is within bounds, our correspondent will please turn to page 206 of last volume of the Country Gentleman, or page 141 of the present volume of the Cultivator, where V. ALDRICH gives the measurement of the tops of several of his apple trees, ten years planted, and subjected since to good cultivation—the average of which is about 18 feet high and 18 feet in diameter. Such trees 30 feet apart will leave but small spaces unshaded at mid-day, and none at all when the sun has declined a little. The roots run at least as far each way as the height of the tree itself (our experience makes the distance greater,) and consequently in less than ten years, the roots will have covered the whole surface. Dwarf trees, planted between, will therefore be injured by the shade above and by the apple roots beneath, and cannot succeed well. They would do incomparably better where they can have the whole sun above and the whole soil below.

Where, however, the apple trees receive nothing but neglect, and do not grow more than two inches per annum, and their heads do not become more than ten feet in diameter in thirty years, they would not injure the dwarfs for a long time—but it would be hard to find the man who would thus neglect his standards, and at the same time give his dwarfs half that thorough and enriching cultivation they absolutely require.

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Number of Stalks in a Hill of Corn.

One of our correspondents writes us that he has lately had a conversation with a neighbor, who has the reputation of being a very observing, sound and sensible man, in regard to the question in the caption above, and that it was the firm conviction of this man, that in the case of Dent corn, and of all kinds which grow to a large size, a larger amount of *sound* corn will be obtained, when there are not over three stalks allowed to grow in each hill, than when there are four, or any number over three, other things of course, being equal. He said that he had observed repeatedly that there were usually two good sized ears of such kinds of corn on each stalk, when there were only three stalks or less in a hill, whereas, when there were four or five stalks, there was seldom more than one ear on each, and of these some would be not unfrequently small, and at harvest prove nothing but soft corn or nubbins He further stated that it was his belief that more depended, so far as the amount of good sound corn was concerned, on having but a few stalks in a hill, than on having the hills at the distance of three and a half or four feet in the rows; and that he had obtained a better crop from corn planted in drills, with stalks about one foot or a little less apart, in one direction, and four feet in the other, than his neighbor in an adjoining field had from the same kind planted in the usual way.

My Mode of Farming.

Editors Country Gentleman—On a farm that twelve years ago could keep (or did keep) only seven cows, one yoke of oxen, and one horse, by buying fifty dollars worth of grain, I now keep twenty cows, one yoke of oxen, and one pair of horses, besides young stock to replace old or poor ones sold. There is now no more tillable or improved land on the farm than there was twelve years ago. As I will show you, it is all owing to turning the least land to the greatest profit, saving manure, &c.

My cattle and horses are not allowed to roam all over my farm, and grub the very life from every spear of grass as soon as it shows itself above the ground, and waste their manure, (which is the great loss of farmers,) where it will wash away, lose its strength, and be of no use, and thus impoverish the land unless you are at a great expense to buy manufactured manures, and I claim that one cent saved is full as good and better than one earned.

I sell milk for New-York market, and farm it to suit the business, but my mode of farming will apply nearly as well to those who make butter.

In spring, as soon as it will do to turn out cattle, (for me it will not do as soon as it does for some people,) I turn my cows into a swamp of four acres which starts first—next into a wood-lot of twelve acres—next into a stony and bushy lot of eight acres—bringing them up to milk at night in the milk-yard, and feeding a little hay, which they relish after eating fresh grass, as the hay is salted when put in the barn. They are always kept in stalls in the yard at night, where I save the manure. Thus they are changed from one of these three lots, which I cannot plow or mow, until my meadows are up enough to mow, which is usually the 10th or 15th of June, but understand that no land of mine that I can plow or mow is grubbed by cattle.

As soon as my grass around the milk-yard, is large enough to mow, my cows are yarded for the summer, (unless it is to let them out for a day or so in the wood-lot for more exercise than they get in the yard,) and fed mowed grass, or sowed corn, three times a day—first, in the morning before milking—second, at noon while my team is eating in the stable at the barn, which is no time lost to speak of—third, the last thing at night after milking. My horses and oxen are kept in the stable to hay, roots, and grain, until the spring-work is done, when they are fed same as the cows.

I have found by actual experience, that I can feed my cows night and morning as quick as I can drive them to and from pasture, and the time spent feeding at noon is paid one hundred fold by the manure saved by keeping them yarded.

I usually sow an acre of corn as soon as the ground is warm enough, say the last of May, and continue to sow small patches near my milk-yard at different times through the summer, and have a good crop for winter use. I find an acre of corn is worth as much as two of grass, for I often get two crops off of one piece, and it is excellent fodder for a change in winter.

In managing in this way, I know I can keep three times as many cows in better condition, and get more milk, than to let them grub for a living as is practiced by most of our farmers. However some of my neighbors begin to see the folly of their ways, and do not pasture their cows at all. When my cattle are in a yard, I can go to bed and not be afraid of their breaking into my neighbor's fields or into the streets, and being driven to pound for safe keeping. Besides it is a great saving in fencing. In this county rails are scarce, and I am putting what stones I have into ditches where they pay good interest, instead of in fences on the land, where they are a nuisance.

My farm is small—only one hundred acres—all but about twenty-five tillable. I raise all my own hay, grain, fruit, &c., and sell more manure than I buy, which is very little either way. My farm is improving faster than the rest of my neighbor farmers, for I have all the manure I choose to make, and my land is not robbed of every thing but the roots of grass.

I write this to encourage farmers to make the most of their farms, and am not bragging when I say I make double as much more from the same amount of land, as any other farmer in the county, unless it is some three or four who are following my practice. I will give you a description of my milk-yard, and some further details of my farming, at another time. An Empire State Farmer. *Putnam Co.*

Mowing Machines at Syracuse.

A few notes on some of the newer mowing machines at the great trial at Syracuse, may be interesting to our readers.

Kirby's Mower, manufactured at Buffalo, was patented last year, and in the short time it has been used, has been found to possess some decided advantages. The cutting bar and driving wheel are on separate axles, so that in rising and falling over uneven surfaces, they act independently of each other; the bar following the surface of the ground, is not thrown up and down by any unevenness over which the driving wheel passes. This renders it a good mower for rough meadows. The whole machine is made of iron, except the seat and tongue, and it appeared to be simple in construction. The cog-work was not so perfect as in some others, and the small balance wheel was not perfectly counterpoised; hence there was more rattling than was desirable; for example, Hallenbeck's, which had a fine gearing and good balance wheel, and was nearly free from noise in running. This is a cheap mower—$100.

The two combined machines presented for trial by Ball, Altman & Co. of Ohio, attracted much attention by their free and quiet running, and good work. Both of them had two driving wheels, which somewhat increased their cost, complexity, and weight, but their motion in consequence was very steady. By means of a racket wheel and click, they always backed out of gear, lessening the force required for running backwards. They had cutter-bars attached to the rest of the machine by double hinge-joints, which allowed the cutter to play freely up and down over a varying surface like Kirby's; and the cutter in one of them could be folded up and turned over on the frame, almost as easily as a bird folds its wings, and in this position the driver may ride upon it from one place to another, as comfortably as a gentleman in his gig.

The cam machine of Deitz & Dunham from New-Jersey, possessed some ingenious points. Two small cast-iron wheels, on the ends of a reciprocating bar, played alternately in the cavities of the cam, and thus imparted motion. This alternate action appeared to lessen the jar or rattle, so conspicuous in some other cam machines.

Another cam machine, just constructed, and now for the first time publicly tried, was exhibited by Pruyn & Lansing, of Albany. The cam is a zig-zag projection on the *interior* of the driving wheel, away from earth and gravel, so injurious to other cam machines. A small wheel on each side of this cam, gives motion to one end of a lever, to the other or larger end of which the knife is attached. Like a few other machines, the fingers were near together, and being wedge form or wider backward, no stone over two inches in diameter, could ever reach the knives, and such small ones would of course fall below. We think such a mower would pass over any meadow without becoming dulled.

The cheapness of this mower ($80) is a recommendation for small farmers, even if its work is not equal to some others.

We observed a great difference in the execution of the cog-work of the different mowers. There appeared to be none equal in this respect to Atkin's, exhibited by R. Dutton, of Ohio—the form of the cogs appeared to be perfect—their faces wore bright equally over their whole surface, and they played together with a perfectly even motion. Other machines had badly made cogs, touching only at points, and jarring and rattling badly. A large share of the success of the best machines, is always owing to the excellence of the gearing.

Among older mowers, of the best class, were Allen's, Wood's, Ketchum's, Hallenbeck's, Hussey's, Burrall's, and others, which are already more or less known to our readers, and do not need any special notice on the present occasion.

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Produce of Butter.

One of the April numbers of an English Agricultural journal contains the following table, containing information valuable and interesting to the dairyman.

"The relation of the food given, to the quantity and quality of the milk produced, is brought out very well in the following table, extracted from a paper in a recent no. of the Journal of the Albert Institution :"

No. of experiment.	No. of cows.	Date of commencing with experiment.	Date of finishing experiment.	KIND OF FEEDINGS WHICH CATTLE RECEIVED.	PRODUCE.			No. of quarts of milk to produce a qrt. of cream.	No. of quarts of milk to produce a lb. of butter.	No. of quarts of cream to produce a lb. of butter.
					Gallons of milk.	Quarts of cream.	Pounds of butter.			
1	5	May 21,	May 27,	Clover and rye grass with a few hours grazing,.....	89⅜	30½	30	11.7	11.9	1.1
2	7	June 22,	June 28,	Winter vetches and grazing as above,..........	122½	41	39¾	11.95	12.32	1.2
3	6	July 21,	July 27	Clover and rye grass, second cuttings,..........	96½	27	26¼	14.29	14.7	1.2
4	6	Aug. 19,	Aug. 25.	Cabbages and grazing,.....	87	31	26	11.22	13.38	1.19
5	6	Sept. 23.	Sept. 29,	Clover, third cuttings,.....	74	28	23	10.57	12.86	1.21
6	6	Oct. 19,-	Oct. 25,-	Mangel Wurzel leaves and dry hay,..........	50½	23	15½	8.78	13.3	1.48
7	6	Nov. 22,	Nov. 28,	Mangel Wurzel leaves and dry hay,..........	40¾	20	15	8.15	10.86	1.33
8	6	Dec. 13,	Dec. 19,	White turnips and barley Straw,..........	35¾	19½	14¼	6.92	9.47	1.36

OBSERVATIONS.—It took an average of 10½ quarts of milk to produce a quart of cream; an average of 12 quarts of milk to produce 1 lb of butter, and an average 1 1-5 qts. of cream to produce 1 lb of butter The average yield of butter from each cow was 154 lbs, the average price per lb., 9¾d The milk vessels were earthenware (glazed); the milk was left setting for thirty-six hours in summer, and forty-eight hours in winter; the cream was churned once a week."

Heaves in Horses Cured.

A friend informs us that his best horse (which by the way, as well as himself, we have long known,) was sold to him when but four years old, by a professed jockey who intended to cheat him. He found, after the purchase was made, what he had some fears of before, that as soon as he was placed upon dry food, that he had unmistakeable symptoms of the heaves—a rather unpromising symptom for a horse so young. He resolved, however, to cure him if possible, and accordingly fed him only on wet hay, and at the same time gave *dish-water* and other greasy slops to drink, which of course he would not touch till very thirsty. But he soon learned to like this mixture, till he consumed all the slops and sour milk from the kitchen, and now, at fourteen years of age, he will gulp down swill as readily as any pig. The heaves very soon disappeared under the treatment administered; but it was nearly three years before a radical cure was effected, or until there were no returning symtoms when he was fed on dry and dusty food. He proved a most valuable animal, and since that time for many years, accomplished about twice the amount of labor, that common good horses are able to perform

A few years since the owner was visiting at a brother-in-law's, when a neighboring horse dealer, seeing the animal, demanded the price—our friend unthinkingly answered, "a hundred and fifty dollars." The brother-in-law inquired, aside, with some surprise, "what, do you want to sell that horse so low—that man will certainly call on you, for he has a *match* for your horse." "Indeed! why I would not part with him for five hundred dollars!" "Yes, he will call on *me*, without failure, to know the character of the horse; what shall I say to him, and tell the truth?" "Say to him that I am a brother-in-law of yours, on friendly terms, and that you would rather not say any thing about the horse." The jockey called as expected—the proposed answer was made, and suspecting this was a proof some secret fault, the jockey was glad to give up his purchase.

This cure may have been owing to other causes than his peculiar drink, yet the experiment is one that is worthy of attention, and if oily or greasy substances mingled with the drink have any influence on the disease, the fact is worthy of testing by trial.

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"Seed Ticks" on Horses and Cattle.

EDS. CO. GENT.—I noticed your reply to S. S. C., of Bowling Green, Kentucky, in your issue of the 25th ultimo, and perceive that the inquiry of your correspondent was not sufficiently explicit, and therefore led you to suppose "a case" and reply to it. The country within several miles of Bowling Green is infested with what is termed "seed ticks," in the months of July, August and September, and in the section of the country known as "the Barrens," they are a perfect nuisance. They are a species of tick as small as a tobacco seed; they insert themselves among the hair on horses and cattle, and produce inflammation, and cause the hair to stand partially erect, and injure the health by producing capillary inflammation

The best remedy for the evil your correspondent complains of, is to wash the parts affected with strong soap-suds, and then rub well with sweet oil or hog's lard

Spirits of hartshorn, (aqua ammonia) 2 ounces; sweet oil, 2 ounces; shake well and sponge the horses with it before riding though "the brush," and they will not take hold. B. *Sparta, Ala.*

ENTOMOLOGY.—No. 16.

The Hunter Weevil in Young Corn.

A correspondent writing from Bainbridge, N. Y., sends us "a new enemy to the corn crop," and some leaves of the corn as ate by it. This insect commences its attack when the blades of corn are only two or three inches long, and before they have unrolled, gnawing holes in them which are scarcely noticed except upon a particular examination, until after the leaves are unrolled and spread apart, when these holes become very obvious, and are then mostly long and narrow, having become elongated by the lengthening of the leaf as it grows.

In a field of seven acres, planted May 27th and 28th, there was not a hill that had escaped these insects, and an adjoining field, planted a week earlier, was still more seriously injured, whilst a third field, which was planted a week later, wholly escaped them. These facts indicate that these insects all become gathered together in those cornfields which are the earliest, so that fields which are later escape molestation, and thus overtake the early planted fields in their growth. These insects do not kill the corn, but do much injury to it by retarding its growth, the leaves becoming stunted in consequence of the wounds made in them, so that at the beginning of July the crop is at least a third smaller than it otherwise would have been. By that time the insects have mostly disappeared. Only four could be found on the third of July.

This insect is the Hunter weevil (*Sphenophorus venatus*, Say) of which a full account and description was given in the Co. Gent, June 14, 1855, (vol. v. p. 373,) and the Cultivator of the following month, (3d series, vol. v, p. 221,) and we have little of importance to add to what is there stated. The earliest cornfields should be closely watched for a week or two, soon after the corn is up, and if it is discovered that these insects are congregating therein, the most effectual and economical mode of ridding the field of them, we doubt not, will be to offer some of the children in the neighborhood a few dimes if they will pass along each row of the corn and pick up every one of these insects that can be found—furnishing them with bottles half filled with water, into which to drop and drown the insects as they gather them. Mr. Curtis, the distinguished British entomologist, alluding to what we published upon this subject, informs us that insects of this kind will revive again, although immersed in water a day or two, and that to make sure work of it, it will be necessary to empty the contents of the bottles into a kettle of boiling water.

Beetles upon and Worms in Potato Vines.

Enclosed in a newspaper just brought me from the Post-Office and marked "Country Gentleman," I find a piece of a potato stalk, upon which is two specimens of the Black blistering-fly (*Cantharis atrata*,) a rather slender cylindrical beetle, about half an inch long, and of a black color throughout. This eats the leaves of potato vines, as does also another similar insect which has been excessively numerous in some parts of our State and country of late years—the striped blistering-fly, (*cantharis vittata*.) This last has black wing-covers, their edges and a stripe on their middle pale yellow, and the head yellowish red with two black dots on the crown. In some places the potato vines have been wholly stripped of their leaves and killed by these insects.

In a cavity which it has bored in the center of the stalk, is a worm, which, so near as I can ascertain in its present dried and shrivelled state, is a species of spindle worm, which comes from the eggs of a moth or miller belonging to the genus *Gortyna*. This is an insect which I think has never yet been named and described, but I have never given it a particular examination. Potato vines are every year perforated more or less by these worms, and I have sometimes found four or five of them in a single stalk, they having mined it and its branches their whole length. Other kinds of these spindle worms bore in the center of corn, lilies, and other plants having a thick succulent stalk.

Gooseberry Insects.

A letter from Ashfield, Mass., gives some interesting facts respecting a worm which destroys gooseberries. As these worms have now vanished for the present season, and some other important insects infesting the gooseberry and currant have lately fallen under my observation, I propose at a future date to present an article upon this subject, to the readers of the Country Gentleman. Asa Fitch. *July* 24, 1857.

* * *

Diseased Apple Trees.

Can you tell me what is the matter with my apple trees? I set one hundred and twenty-five in the spring of 1856. In the course of the summer the bark on many of them turned black, although they grew well, and all started well this spring. But since then the blackest of them are dying. What is the cause and cure?

Do the King Birds catch bees? M. S. K. *Chicopee, Mass.*

We cannot with certainty assign the cause of the death of the apple trees. Probably they had been injured by the intense cold of winter, followed by the injurious effects of the sun's rays. We have known large trees, (2 or 3 inches in diameter) the bark of which had become inured for some years on one side to the sun's rays, and on the other side to shade alone, become similarly affected when their position was reversed in transplanting, but this effect is not produced on quite young trees; and in fact rarely on larger ones. We do not know of a remedy after the injury is done, but if the trunks had been shaded with straw tied loosely on, when the trees were set out, it would probably have prevented the disaster.

The king bird destroys gad-flies, beetles, grasshoppers, crickets and injurious insects generally, and in this way is a valuable assistance to the farmer, but he also occasionally feeds on bees—these he appears to watch for some time, until he selects one to suit him, and some farmers believe that it is only the drones that he destroys, which he prefers on account of their larger size. The question might be easily settled by an examination of the contents of a few birds after shooting them. Our opinion is, however, that he is a positive benefit to farmers, by the many noxious insects he destroys.

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Management of Top-Onions.

Eds. Co. Gent.—In answer to inquiries in your last no., allow me to say that the top-onion will produce setts the second and every succeeding year up to at least the tenth year. My plan is to allow the bulb to remain in the ground until the third or fourth year, when it is necessary to divide and re-set them, as new onions will form around the old bulb, and new seed stalks will shoot out, forming quite a large clump to each onion originally set. C. B. Bellows. *Janesville, Wis.*

I would inform O. L. DeForest that the onion is not exhausted after bearing seed, but may be allowed to stand for several years, and will produce good seed yearly, unless the winters are uncommonly severe. It is the practice here to sow the seed thickly in drills in the spring; these are gathered in August, dried and kept till the next spring, when they are set out and produce early onions. The earlier they are set out the better. J. W. L.

Apple-tree Borer.

Messrs. Editors—Can you or any of your numerous correspondents, give me any information in regard to "borers" in apple trees—their nature, and the remedy to be applied? In examining my trees I find that nearly all are more or less injured by "borers," and some past recovery. In a new country like ours, this is a very serious matter, and I should like much to hear from some of your correspondents upon this subject. I find in talking with my neighbors, that the trees all through this part, are troubled like my own. C. E. Bloss. *Shiawassee*, *Mich.*, *July* 15, 1857.

There is no doubt that the apple-tree borer has become widely spread through several States, and that many have their orchards infested with it, who do not at all suspect its presence, who never saw it, and indeed who may not know that such a depredator exists. Its inconspicuous appearance leads to this oversight.

The perfect insect or beetle varies from 5-8ths to 3-4ths of an inch in length, the males being smaller and more slender. It is covered with a fine whitish down, and has three brownish stripes. These insects deposit their eggs in the bark of the tree, near the surface of the earth, in the early part of summer, and only by night. when they are numerous, they often lay their eggs higher up, and in the forks of the larger branches. To *prevent* laying their eggs, soft soap deposited in the forks and rubbed about the bottom, has been found efficacious. Downing applied a mixture of tobacco water, sulphur and soap, with success; but Dr. Fitch thinks all its virtue lay in the soap. When the eggs hatch, they produce a small maggot, whitish, with a yellowish head. It eats into the bark and discolors it for a small distance around, and if the dry outer bark be scraped off at the end of summer or first of autumn, these dark spots will show where they are commencing their depredations, and now is the time to kill them most easily, which may be done at this stage by washing the scraped bark with strong ley.

At a latter stage they cut into the sap-wood, and throw out their saw-dust, when they may be punched to death with a small twig. Still later, and when larger, they go into the heart wood, and now for the first, pack their saw-dust excrements into the hole after them, rendering it more difficult to reach them. Hence the importance of taking them early.

We would recommend every orchardist to look closely to his trees at all times—to coat with soft soap early in summer—to scrape the outer bark later in summer, for the dark spots, if he has any reason to fear their presence, and to kill the young maggot at once. If left later, their presence is shown by the saw-dust appearances around their holes in the bark, when they must be cut out with a knife, or punched to death. At any stage the knife may be freely used to cut them out, for wounds by cutting are better than death by the borer. At all times exercise watchfulness and vigilance, and be satisfied with nothing short of actually *killing* the insect.

Wilson's Albany Strawberry.

Last September (1856,) I ordered of Mr. John Dingwall, Albany, one hundred plants of Wilson's Albany Strawberry. They were set on soil that was not rich the 16th of Sept. They got a growing as winter set in; I little expected so large a crop of fruit this season. Never was I more happily disappointed; they gave a fine crop. The berries were large, flavor good and sprightly, some of them measuring four and a half inches in circumference. The plant is a strong grower. Leaves large, of a deep green. This berry is much admired by all who have seen it. It appears that this berry has earned its own reputation. We congratulate Mr. Wilson on his success in raising us so fine a fruit, and for charging so small a price for it. S. Worden.

Insects on the Currant.

Messrs. Editors—The currant can be used for so many valuable purposes, that it should receive a more general and better cultivation. It is indispensable in every garden, and deserves one of the most favorable positions, instead of being placed by fences mostly shaded during the whole day. My bushes are set by the fence, receiving the sun three quarters of the day, about one foot a part, in a border of four feet. In the fall the border is covered over about six inches deep with horse litter. In the spring I remove all this covering, and spread over the whole border about four inches deep of rich compost, and give the whole border a covering of salt hay, which keeps the ground moist, for these bushes require a moist soil. As early as possible in the spring, pruning should be done, being careful to thin out the bushes in the center, so that the air may have a free circulation. I keep up during the summer, until the fruit ripens, a constant pruning.

But my principal object in this communication, was to call attention to an insect that troubles our bushes, much to the injury of the fruit and the bark. It first appears on the underside of the leaves. The leaves before the appearance of this louse, turn in spots a dark color. On examining the leaves there is no appearance of the louse, but in a few days the louse appears and increases at a most astonishing rate, for they have nine generations at one copulation. The leaves of my bushes last year were mostly covered with this insect. This season I took about half a peck of lime and a few pounds of sulphur, and mixed it together in a tub; then slaked it with hot water, keeping the tub covered tight; then filled up the tub with water, stirring and mixing the contents well together. In a few hours it will settle clear. With a watering pot I every other morning sprinkled the bushes, beginning very early in the spring, and so continued till the blossoms appeared, and several times a week syringe with this liquid, so as to reach the underside of the leaves. The leaves on my bushes have very few of these insects, instead of having nearly all the leaves covered as last year The remedy I think will be effectual. I shall try it next season, and if the same success follows it may be considered a "fixed fact" that the application of lime and sulphur is a sure remedy. Dirigo. *Portland*, *Me.*

How to Make a Horse Draw.

Eds. Co. Gent.—I once knew a man that bought a fine looking sorrel mare, that was as false as a beast could be, but he finally cured her to perfection in the following manner: He geared her to the cart, and went to the cornfield to get a load of pumpkins. After he had got some ten or a dozen on, she thought she had too much load, and refused to pull. He coaxed and petted her for some time, but all to no purpose. He next got a stick, and thumped and thrashed, with the same success. He then thought he would try another plan. He got the wheelbarrow, and wheeled pumpkins enough to make a full load, and put them in the cart, when he took her by the head again, but it was no go. He then started home, and concluded she might either pull the load or stand there until the day of judgment. But when the sun began to get low, she began to think about her supper, and started for home, passing skillfully through 3 sets of bars, and arrived at the barn in safety with her load. He put her in the stable, and fed her as if nothing had happened. She refused to pull at two other times, but she got the the same treatment each time, so she found it was no use, for she had to pull the load in the end. After that she became as good a beast to work as ever was hitched. H. Williamson. *Chester Co.*, *Pa.*

Notes about the West—III.

Prairie Farming—Want of Water and Timber—Hedge and Wire Fences—Profits of Farming.

We have already shown that a new prairie farm may be brought under profitable culture with but little labor and expense, as compared with that required for one located in a wooded country. The Prairies possess other important advantages than those we have enumerated, but we propose now to speak of some of the disadvantages with which the farmer on the open prairie has to contend. The great objection, peculiar to a prairie country, and which will at once strike the eye of an eastern man most forcibly, consists in the absence of wood, water and stone, materials so essential for comfort, for building, fuel and fencing. This is a serious disadvantage, and were it not more than counterbalanced by the advantages to which we have alluded, would prove an insuperable obstacle to the settlement of the Prairies.

Water.—At a distance from streams, the main reliance for water, both for domestic purposes and for cattle, must be upon wells, which are expensive and inconvenient for stock, as it must be mostly drawn by hand. We doubt not, however, that this labor will ere long be saved by the use of wind-power, as it can hardly be possible but that some of the numerous contrivances patented for this purpose within two or three years past, will, when brought into use, be found fully adequate to the purpose. Good water is usually obtained by digging from 20 to 40 feet. On many farms, water may be supplied for stock, by properly ditching the sloughs, an improvement greatly to be desired on some farms which we visited.

Buildings, Fences and Fuel.—All the materials for building, fencing and fuel, must, at least for the present, be carted a greater or less distance; but the numerous railroads now in operation and in process of construction, are bringing these materials yearly nearer and nearer to every township; and the necessary carting, after providing for the first season, may mostly be done in the winter, when there is little else for the men and teams to do. The timber necessary for the cheap but comfortable frame houses of the new settlers, may be procured at the nearest railroad depot, at a reasonable rate; and stone are but little used, as good cellars are made by plastering cement on the bottom and sides of the excavation. Little timber has as yet been required for barns, they being rarely seen on the prairies—a defect as injurious to the interests of the farmer, as it is cruel to the poor dumb beasts who have to spend the winter where the mercury falls to twenty or more degrees below zero, with no other shelter than that afforded by the numerous stacks of hay and straw. For fuel the main reliance must be upon coal, which will be abundant when the demand for it is such as to warrant the opening and working of more coal beds.

Osage Orange Hedges.—For fencing, great reliance is placed on the Osage Orange hedge. We saw many miles of it, one, two and three years old, and took some pains to ascertain the opinions of the owners respecting it. Judging from the appearance of the hedges, we anticipated unfavorable replies to our inquiries in relation to its value, as we saw very little that would serve as a protection from cattle. Most of it was of very uneven growth and full of gaps, presenting any thing but a flattering aspect to the eye. But to our surprise, the owners of these unpromising looking hedges, without exception, assured us of their entire confidence in the Osage Orange as a hedge plant, and of their belief that it would in time supersede all other material for fencing. It has proved itself, by surviving without material injury, the past two winters of extraordinary severity, sufficiently hardy. The bad condition of most that came under our notice, was attributed entirely to want of protection from cattle and care in cultivation. The plants (seedlings of one year) are mostly set out by those who grow them from the seed, at a specified price per rod or mile. They then, to make a good fence, require not only protection from all domestic animals, but careful culture and trimming for three or four years; but this protection and culture they seemed rarely to have received, the excuse being that it was required at a season when other labors of the farm were so pressing that the necessary attention could not be given to it. We confess to some doubts whether hedges of any kind will ever become popular and useful in this country, as they require more care and attention than our farmers can, as a general thing, be induced to bestow upon them.

Wire Fences.—In a tour through Scott and Clinton counties, Iowa, we noticed that wire was used for fencing to a considerable extent, and seemed to be very much liked. It was mostly built in a very cheap manner, but four wires being used, with the posts from thirty to fifty feet apart. We saw no wire fence in Illinois, but since our return, have seen in the papers a letter from Mr. D. Richards of Sterling, Whiteside county, in which he says that fifty tons of wire have been sold in that town for fencing, the present season, and that much more would have been sold, could it have been procured. We copy from Mr. R.'s letter, his description of the manner in which wire fence is built in that vicinity:

> "We use No. 9 wire, and set the posts 30 feet apart, and every 40 rods set an anchor-post firmly braced; attach the wire to the anchor-post and run out the 40 rods, placing them on the ground close to the foot of the posts, so that they may not get tangled. Hitch the lower wire to the hind axletree of the wagon and start ahead. If the wire breaks, back up, twist together, and start again, and keep doing so until you have broken it wherever there is a flaw or it is cracked, as it is better to break it now than to have the cattle do it after it is in the fence; and then it is doubtful whether one team can pull a good quality of No. 9 annealed wire apart, but it will stretch in 40 rods, four or five feet, and contract when the team has done drawing. Now your wire is ready to put into the fence, and you raise it up to the desired hight on the post and drive a staple to hold it there, but do not drive the staple quite up to the wire, as you want it to slide through pretty freely. When your staples are all driven and you come to the anchor-post, the best and most economical way of tightening is by means of a wooden pin. Bore a 1½ inch hole through your post, and square said hole in a few inches. Make a pin with a square on one end, the other end to fit nearly, when driven into the hole in the post; put the rounded part of the pin in the post, attach your wire to it by means of a small gimlet-hole, and then with a wooden crank that you can use for all your fence, turn up said wire until it is not only tight, but you may stretch it a foot or eighteen inches; and when the square of the pin is right with the mortise in the post, drive the pin into the post and take off your crank, and you wire is fast.
>
> There are miles of such fence in our county, where the wire is drawn just like a violin string, that has stood through the violent cold the past winter with not a wire broken.
>
> The staples are usually made here with a simple machine, by which any farmer can make 1,000 per hour out of the same wire, and they will drive into the hardest oak posts without a hole."

Profits of Prairie Farming.—A respected correspondent sends us the following comment on our Notes No. II:

Your account of prairie farming is flattering. To get rich with such crops, so easily grown and selling at such high prices, would seem to be the work of a very few years for an industrious prairie farmer. In the months of June and July the prairies are charming, seen for the first time, and the promise of easily acquired independence and wealth by the cultivator, is often demonstrated to be sound corn, by figures that are said not to lie. Many a snug fortune has been ciphered out as plainly as need be, from prairie farming, for the last thirty years. Numbers, now counting millions, have been engaged in prairie cultivation for years without having reduced the price of farm products. How has this happened? Corn can be raised, it is said, at from five to ten cents per bushel, and wheat perhaps for twice that sum. How has it happened that the agriculturists of Illinois, between the years 1840 and 1850, earned less per capita than those of several other States not blessed with the absence of trees? You are aware that for the last few years the prairie regions have had poured into them such a tide of wealth, *earned elsewhere*, that it would have enriched any country. How many hundreds of millions of dollars have been carried thither to build railroads and cities, and to open farms, since 1850, who shall be able to compute? They have been the favorite field for investment from many of the richest portions of the world, until the bubble of speculation has become enormous. Permit me to record the opinion that, within five years, farms all through the prairie region, will be on sale for much less than the cost of their improvements; and that at no future day within fifty years will wild farming lands on the prairies sell as high, on an average, as during the present season of land speculation. Greybeard.

In reply to the query as to how it has happened that the "millions" who have gone west, have not reduced the price of farm products, if the prairies can be cultivated with the facility we have represented, it is, we think, sufficient to say that a large portion of these "millions" are to be found, not employed in the cultivation of the prairies, but in the construction of towns, railroads, canals, &c. They have been consumers, and not producers of food.

From "1840 to 1850," the prairie farmer had little inducement to labor. Although he might raise four bushels of wheat or corn, or four pounds of beef or pork, as cheaply as the eastern farmer could raise one, yet the one bushel or pound at the east brought the most money. During much of this time, the interior prairie farmer could not sell one of these products at his home for cash at any price, and the cost of transporting them to a cash market was in many instances nearly equal to their entire cash value. But now, by the aid of the millions of money and men that have gone west, railroads have been opened, and cash markets, whose rates are daily regulated by the prices in New-York, are brought within the reach of a large portion of the farmers of Illinois. Then the products of the farm were literally a drug. Now, they sell as readily, and at as fair a profit on their cost, as in any other part of the country.

"To get rich," by farming or any mechanical or professsional employment, is not, in these days, so very easy a matter. But what we maintain is, that farming, whether on the prairies or at the east, affords as inviting a field for the accumulation of that competency which all men so naturally desire, as any other industrial or professional pursuit. But the question now under consideration is confined to prairie farming, and we have shown in a previous number, that it can be made profitable. That it has been made profitable, we had abundant evidence in our late tour, and could fill columns of our paper with individual instances, but will now only refer to a case or two. In one of our drives on the prairie, we noticed a particularly well fenced and well cultivated farm, with a commodious farm-house and a snug cottage for the farmer's laborers, both situated in a beautiful grove. On reaching the house, and observing the farmer quietly seated on his piazza, for it was about sundown, we drove up to the gate, and entered into conversation with him. In answer to our inquiries, he informed us that he came to the west fifteen years ago, with no other property than that which consisted of a sound mind in a healthy body—that after working by the month in one of the chief towns for three years, he was enabled to commence for himself. Twelve years ago he bought a portion of the farm he now occupies, at $5 per acre. His subsequent purchases cost him $12 per acre. He now has 400 acres of as fine land as one could desire, well stocked and fenced, and under profitable cultivation, with good buildings and other appurtenances. And all paid for—the result of fifteen year's labor, without a cent of capital to begin with. He not only farms well, but manages his affairs discreetly, as any one must do to accumulate an independence. What he has done may be accomplished by any other equally intelligent and industrious farmer. It should be remembered that most of the new settlers who have been long on the prairies, had but little if any capital to begin with, and that what they have accomplished, has been the result mainly of their own industry; and we were assured by a very worthy gentleman who removed from New-Jersey twenty years since to a prairie farm, that in all that time he had never known to exceed four or five emigrants, among all his extensive acquaintance, who had failed to "make money by farming," and the failure, in the cases of the persons alluded to, arose solely from their inefficiency.

The prophecy of "Graybeard" may prove true. We have as little faith as he has, in "land speculations." Not one in twenty prove profitable to those engaged in them, while all such speculations, whether in town lots or farm lands, are a serious injury to the country, greatly retarding as they do the growth of cities and the settlement and improvement of the country.

Swine.

Last winter I made some inquiries through the Country Gentleman, concerning a sow that had lost the use of her legs suddenly on being turned out on the ground, after having been kept in the pen for some time. This spring I have had two more affected the same way, and others in the neighborhood are similarly affected. I have heard much said about the stoppage of the holes in the legs of hogs; having never read anything about it in works written on the hog, I thought probably it was not so necessary that these should be kept open as some supposed; but I now feel satisfied that the stoppages of these holes was the cause of my hogs becoming helpless, and that it is necessary to the health of the hog that these should be kept open and discharging.

On examining the fore-legs of a hog, several small holes may be seen on the inside of the hinder part of the knee; from these, in a healthy hog, exudes a moisture; whenever these are found to be closed and dry, the hog will not be in a healthy thrifty state. I find it a good thing to take strong soap-suds and a corncob and rub the legs well. If any one can tell me the cause of the stoppage of this discharge, and a better remedy, I shall feel obliged. Also, the best mode of rearing pigs and their management so as to keep them from getting scurvy or the scours. Some say pigs will never do well unless allowed to run on the ground, yet the handsomest pigs I have seen this spring had been kept in the pen on a stone floor since they were pigged. J. W. Lequear. *Frenchtown, N. J.*

Cure for Ringbone.

Messrs Editors—I notice an inquiry for a cure for ringbone. I had a four year old colt that became very lame with one, and after trying various remedies without any benefit, I tried burning. I took a hot iron and laid it on until it was well burnt. After the burn got well, I found a sound and useful horse with the exception of a small enlargement. Aaron Morris. *Steuben Co., N Y.*

Cooked or Uncooked Food for Swine.

Accurate and carefully conducted trials or experiments will, sooner or later, determine the practical value of a newly introduced farm implement, whether it be a patented churn or a grain harvester; there is something tangible about these things that both the eye and the judgment can take cognisance of. So, too, the practical value of a new variety of potato can soon be tested, whether it is a rohan or a *dioscorea*. Two or more neighboring farmers will generally come to the same conclusions in regard to these matters; so in regard to numerous other matters connected with rural affairs.

But when we come to compare apparently sound and reasonable *theory* in regard to that important branch of agriculture—animal nutrition, with facts derived from the carefully conducted experiments of different farmers in feeding fattening swine, we at once meet with discrepancies and contradictions that we can neither fully reconcile or explain.

Taking one side of the question, the feeding of uncooked food as being the best and most economical method, and it completely upsets some of our long cherished and preconceived notions in the economy of fattening hogs. The pork business is one of vast pecuniary interest to our country, and whether a bushel of corn makes 16½ lbs. of pork, or only 5¾ lbs, as per Mr. Clay's experiment (as reported in the Co. Gent. of 2d of April,) it will readily be seen that it would make a difference of millions of dollars in the money value of the corn annually fed to the hogs of this country.

Theory and the general practice of farmers, seem clearly to point out the economy of cooking the food for fattening, and hundreds of reported experiments go to sustain both the theory and practice of cooking. But it is equally true that other experiments prove the exact converse of this. How are we to reconcile these discrepancies? Without attempting to decide the question pro or con, we will give the theory in favor of cooking and the results of cooking, and per contra, and leave the decision of the question to our readers.

Said the late Prof. Norton:—"The state in which food is given, has an important bearing on the effect which it produces in sustaining or fattening an animal. Cooked food in various forms, is found of great value in feeding. This is especially true of many roots, as potatoes, carrots, &c., also of *every kind of meal*, of pumpkins, squashes, apples, &c. When cooked, the animal eats its food more readily, and a small quantity goes further. A small portion of food which an animal can at once eat, digest, and make into its own bones, muscle and fat, is worth more than a large quantity of the same kind which it can only eat with difficulty, and digest slowly."

The above views seem to be founded on correct physiological principles.

In our issue of 23d of April, in a well written article by C. T. Alvord of Vt., on "Chemistry and Agriculture," Mr. A. takes the same or similar views on cooking food for fattening animals, that are expressed by Prof. N.

In the Co. Gent. of April 2d, is published some account of Mr. Samuel H. Clay's experiments in feeding boiled corn, cooked meal, and dry shelled corn to swine.

"The results of Mr. C.'s experiments, confirmed as they are by those of others, show that the grinding of corn into meal, and the cooking of the latter will make one bushel of corn produce more pork* than two would do, and nearly as much as three would if fed whole and uncooked.

"The results of Mr. Clay's experiments show that the number of pounds of pork for each bushel of corn was as follows:

When fed in the form of		boiled corn,....	14½ lbs.
do	do	cooked meal,...	16½ "
do	do	dry corn,.......	5¾ " "

We feel no disposition to call in question the accuracy of the above detailed experiments or figures, because we have read many similar experiments in regard to the advantages of cooking the food usually given to fattening swine, over that of raw or uncooked, and we must confess our prejudices have been strongly in favor of cooking by boiling or steaming the roots, apples and meal, or of scalding it before fed to our porkers. But whatever our prejudices or practices have been, we feel it our duty to give the other side of the question, because facts, the deductions of carefully conducted experiments, show (by weights and measures) exactly opposite results.

The first experiment we shall refer to is that of Jos. How, Esq., of Methuen, Mass. His experiments are reported in tho Essex Co. Transactions for 1848—in which he gives the details of feeding five pigs from the 25th of August till 28th of November, changing the food several times during the trial, and weighing the pigs at each change of feed. He says:

"That there should be no mistake in regard to the above experiments, I have fed them nearly all the time myself, and weighed them myself, and the result was in favor of *uncooked meal.*"

In Flint's Agriculture of Mass., 1855, Albert Montague of Sunderland, gives the result of an experiment in feeding swine with cooked and uncooked food:

"The meal cooked and uncooked, was alike; one-half corn, one-fourth oats, and one-fourth broom seed. I cooked the meal by stirring it into boiling water and letting it boil from thirty to forty minutes, by which time it would swell to three times its capacity before boiling. The pigs selected were all doing well upon uncooked food. I put four in two pens, side by side; weighed them four different times; kept an correct account of their weight at each weighing, and weighed the same hour of the day each time. I fed two of them with cooked meal four weeks, and they were not so heavy by eleven pounds as at the time I commenced. They were weighed twice during the time. They ate four bushels of meal. I fed eight and one-fourth bushels of meal, uncooked, to the others, and they gained eighty-two pounds. I then fed the last named pigs three and one-half bushels of cooked meal, and in three weeks they lost four pounds. I fed five and a half bushels of raw meal to those first fed, on cooked food, and in three weeks they gained sixty-one pounds. I think this proves conclusively that we cannot fatten swine, with profit, on cooked food. Had my pigs never had any meal but what had been cooked, I presume they might have improved a little upon it; but taking them from uncooked and putting them upon cooked food, they did not eat quite so freely at first as they otherwise might—hence a loss.

"But when we remember that even a hog cannot be so *hoggish* as to more than fill himself, and one quart of cooked meal would fill as much as three quarts of uncooked meal, we can easily see that a pig, fed on uncooked meal, would eat nearly three or quite three times the value of meal, compared with the one fed on cooked food—providing cooking did not increase the value one-third, then a pig would not be able to eat enough to fatten readily, and it must take a certain amount of food to support life, whether cooked or uncooked. Taking swine from uncooked food and putting them upon cooked food, in both cases, they lost in weight; but, on the other hand, taking them from cooked food, and giving them uncooked food there was a fair gain."

In a discussion at a meeting of the Hillsboro Ag. Society as reported in the Granite Farmer, Feb. 25, 1854, A. M. Cleaves said "that he knew of 200 swine kept at the same time by the same owner; a part were fed on raw meal and water, and a part on fermented food, having the same quantity of meal in its composition. Those fed on the uncooked food did much the best." Col. Tyler, of Pelham, said—"A man in Pelham, now deceased, who raised very fine hogs, used to put his corn meal in one end of the trough and water in the other. The hogs mixed to suit their tastes."

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* Live Weight.

We know a farmer, who usually keeps some eight or ten cows, and several hogs, besides pigs. In one trough he keeps a supply of dry Indian meal, in another the whey, skimmed milk, &c., is turned—and the hogs help themselves, whenever dry or hungry. He has followed this method for several years, believing it the best and most economical way of feeding and fattening his hogs.

In the Co Gent. of the 23d April, W. A. H. gives his experiment in fattening pigs, fed entirely on raw meal, sour milk and cold water; obtaining over twenty-three pounds of dressed pork for a bushel of corn fed, realizing two dollars per bushel for his corn. The statesment of Mr. H. can be fully relied upon.

It is generally supposed that cooked food is more nutritious than uncooked. The object of cooking is to render the food more readily assimilable, or, in other words, easier of digestion. From some of the statements we have brought forward, they seem, at least, to cast a shadow of doubt over the economy of cooking Indian meal for fattening swine.

We have not within our reach at this time, enough of reliable experiments in reference to the cooking of potatoes, carrots, turnips, and other roots, to throw much light upon the subject, and can now only refer to some experiments reported in the *Irish Farmer's Gazette*, some three years ago, on uncooked ruta bagas:

"Eight hogs were selected and divided in to two lots, as evenly as could be, and put up to fatten on the 27th of November. Each lot was fed regularly three times a day, having each 12 lbs. of bran and barley meal, the only difference being that one lot had steamed ruta bagas, and the other pulped (grated, raw) ruta bagas. The experiment was continued thirty-nine days; the lot having *cooked* food, eat 468 lbs. of bran, &c., and 10,920 lbs. of ruta bagas, and increased 103 lbs., while the lot having *uncooked* food, eat 468 lbs. of bran, &c., and only 5,460 lbs. of ruta bagas, and gained 110 lbs. It will be seen that the lot with cooked food eat twice as much ruta bagas as the lot having uncooked, and at the same time did not gain so much in weight by seven pounds."

We have cited the foregoing reports of experiments, not, however, with the idea of casting much light upon the "vexed question" of cooked and uncooked food for fattening swine, but rather for the purpose of calling the particular attention of farmers to the importance of experimenting for themselves in the important business of converting their apples, roots, potatoes, corn, and other grains, &c., into pork. The whole thing is a matter of dollar and cents, and one that makes quite a difference in the "profit or loss" in srtiking the balance sheet of the account, whether the farmer realizes but 5¾ lbs., live weight, of pork from a bushel of corn, as stated by Mr. Clay, or obtains over 23 lbs. of dressed pork, as given by W. A. H.

The experiments we have quoted, seem generally to have been conducted with care and exactness. But when we come to inquire of different farmers as to the amount of pork a bushel of corn will make—we mostly get opinions, and not the results of actual trials. In this matter, we find that there are others besides the Yankees, that *guess*.

Several years since, the Commissioner of Patents sent a circular to various parts of the United States, in which he proposed this question, among others,—"How many pounds of meat will one hundred pounds of corn yield?" Comparatively few of the responses definitely answer this particular question. But those given, vary from eight to forty pounds. If in any instance 100 lbs. of corn (nearly two bushels) will give but eight pounds of pork, or but four pounds for a bushel, raising pork under such circumstances is a small business.

The Commissioner, in a note appended to the 301st page of the Report (for 1851,) expresses his own opinion that "one hundred pounds of corn meal ought to produce twenty-five pounds of pork," and he adds that "three and a half pounds of meal gave Mr. Ellsworth, former Commissioner of Patents, a pound of pork." This last would be twenty-eight and four-sevenths pounds of pork to one hundred pounds of meal.

It is well known that there is a great difference in the breeds or varieties of hogs, and individuals of the same litters, in their capacity of taking on "flesh and fat" from the same amount of food, and under the same circumstances, though we are not aware of there being so great a difference in porkers as in individuals of the genus man. As far as our knowledge extends, Calvin Edson and Daniel Lambert were the extremes—one was a living skeleton, the other a mass of human fat and oil.

"Many farmers have found, that on the same amount and kind of food some hogs will gain much faster than others; that some will become fat on uncooked vegetable food, as raw apples, while others will require grain or meal to bring them to a slaughtering condition; that some will keep in good order, and thrive on clover or grass only, while others can only live on such fare; that in some the tendency to fatten is so great, that it is necessary to keep them on very low diet to insure their breeding."

A judicious selection of breeders, and care in breeding, will undoubtedly have much to do in making the raising of pork profitable or otherwise.

My Milk Yard.

Messrs. Editors—My milk yard covers about one acre of ground, oblong east and west—with a good spring on the northeast corner, and a cheap but good house over it, where I cool my milk and prepare it for market. A good stream of water from the spring and swamp runs through the northwest corner, which affords plenty of good fresh water for my cows at all times.

The south side is a row of stanchions for my cows, with a shed to cover all, so that in storms we keep dry while milking. The stanchions are seven feet from the wall, leaving room for a man to pass in front of the cows with a hand-cart, to feed the cows grass or cornstalks, and a ditch behind the cows leading all the urine and liquid manure to a large cistern in the southwest corner of the yard.

In the center of the yard is a cheap shed, 50 by 15 feet, for manure. In the spring I go into the swamp and cut large bogs, and make a bog fence all around just under the edge of this shed, so that the manure will not spread nor the cattle get over it. I spread a layer of bogs of muck on the bottom, when it is ready for the reception of the manure from the cows, old leaves, refuse straw, weeds, muck, lime, ashes, plaster, &c., with an occasional soaking of liquid manure from the cistern. In this way I have every spring a pile of manure worth a *small fortune*, where I should have realized not one-twentieth part by turning my cattle to grass. The cows are kept in the stanchions over night; then their dung is all in a pile, so it is but little labor to transfer it to the compost heap, and I am not afraid of the cattle hurting or hooking each other during the night. The stiller we keep them the less they eat to keep them in good condition.

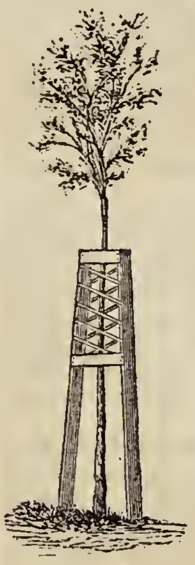
I raise most of my cows, oxen and horses, and find by turning them into my wood lots, swamps, and the lot too stony to till or mow, I can raise them and not feel it half as much as to pay $40, $50 or $60 for cows, or $160 for a yoke of oxen, or $300 for a pair of *good* horses, and I will keep none but the best, for I find that good stock eat no more than poor ones, and are much more profitable. An Empire State Farmer.

Street Trees.

There is nothing that relieves the dullness of a formal row of houses, so well as a line of fine, green, luxuriant shade trees; and nothing gives a more beautiful and refreshing appearance to any town or village, than the simple and cheap adornment of foliage. Those cities in our country, which are famed for their beauty, owe more than nine-tenths of this beauty to their elms, maples, and other shade trees. Remove all these from such a city as New-Haven, for example, and it would become bald, meagre, and spiritless.

A great many street trees are planted, which perish by midsummer. There is a special cause for this, besides the ordinary causes of bad transplanting and the want of cultivation and mulching, so common to all newly-moved trees. This cause is the rubbing of cattle, and occasionally their assaults by browsing. Cattle should never run in the streets, as they do much more damage than the value of their pasture; but there we find them, and we must guard our trees accordingly. There is not probably one tree in twenty that will survive the effects of their constant rubbing, even if such trees have been set out in the best manner, so well as to be certain of all living if no cattle approached them.

Those, therefore, who have set out street trees the present year, who have done the work well, have witnessed the good progress so far, and who flatter themselves that they will endure the inflictions of cattle without any protection about them, should at once discard this erroneous notion, and provide immediately a structure to shield them. After trying several modes, we find none equal to that shown in the annexed cut, neither in cheapness nor in neat appearance. It is well known to some of our readers, and consists, first, of two stout pieces of board, about five inches wide, and eight or nine feet long, which are inserted with the lower ends a foot and a half into the earth, and nearly upright or a little inclined towards the tree on each side. These are connected by four cross-boards nailed on horizontally, as shown in the figure; and the intermediate space has strips of common lath nailed on at intervals of three or four inches. These strips parallel with each other, but not quite horizontal; and being placed at opposite inclinations on the opposite sides of the structure, give a neat lattice-like appearance. The long upright pieces will be strong enough if of stout fence-boards; but would be more secure if inch-and-a-half plank. They are most easily set before the hole is filled; but may be inserted afterwards by partially hewing them sharp, and driving them into crowbar holes. If there is any danger from sheep, the lath may be nailed on the whole space, so as to enclose the tree from top to bottom.



Street trees cannot be easily cultivated, and must therefore be carefully, widely, and copiously mulched. The soil is liable to become trodden hard, or else covered with a growth of grass and weeds. Either will be very detrimental to the success and growth of the tree. A good mulching will keep the grass and weeds down, and prevent the surface from becoming dry and hard. As usually performed, a little conical pile is placed around the foot of the trunk, and does not cover a twentieth part of the surface required. It is true, the roots may have been cut very short in digging up the tree, so that a hole two feet in diameter will receive them all; but it must be remembered that if the trees grow as they should, the roots will soon extend two feet more on *each* side, making the circle *six* feet—and add to this, that weeds and grass generally have roots at least two feet long, *which run in towards the tree*, it will be perceived that the mulched ring, to have its full effect, should be not less than about *ten feet* in diameter, before the close of the first season's growth. It is usually made but a foot or two, the young roots shooting out far beyond its outer border, and the mulching is therefore about as useful as it would be to pour a pail of water on the tail of a thirsty horse in order to give him drink.

Wolf Teeth in Horses.

Eds. Country Gentleman—You ask for experience in reference to wolf teeth in horses.

Why such teeth affect the eyes I know not; neither did I ever see any one who pretended to give any reason, though I have asked the most experienced and skillful dental surgeons. But that two small, sharp teeth, called in common parlance wolf teeth, frequently grow one on each side of the upper jaw of the horse, just in front of the molars, is a fact known to all conversant with young horses; and that such teeth do injure the eyes I have no question. My father raised some blood horses, and I can remember when quite a boy, seeing them knocking out these teeth from the colts. Although the eyes recovered soon after the teeth were out, I could see no reason for it, and thought it an absurd custom. When old enough to take a more practical interest, I thought it must be the bleeding occasioned by extracting the teeth that was beneficial; but I soon found by practical experience, that bleeding would not cure the eyes while these teeth remained in. I have known, I should think, as many as thirty cases. I never knew them come in colts younger than two or more than six years old. Horses more frequently, though mares sometimes have them. I have noticed one eye of one of my young horses becoming sore, and found quite a large wolf tooth on that side of the mouth, while the tooth on the other side would be but just making its appearance, and the eye on that side quite clear. I have known some cases where but one tooth ever came, but in most instances where one appears, the other will come shortly. I have had three cases among my own horses the past spring, all of which recovered soon after the teeth were out. And I do not now recollect an instance where the teeth were extracted soon after the eyes became sore, that they did not recover. They are best extracted with forceps. Wm. H. Ladd. *Richmond, O.*, 7 mo 6, 1857.

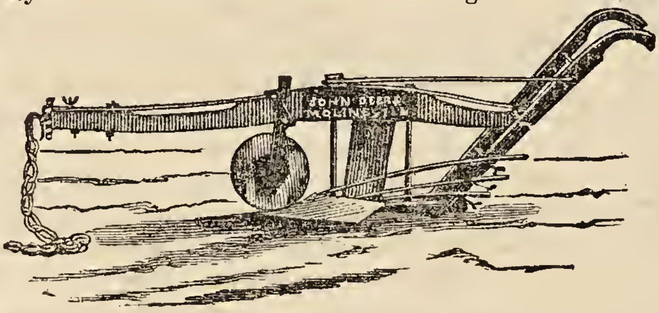
A New Butter-Worker.

Messrs. Editors—I wish to inform you that I have now in operation in our Society, a Patent Butter Worker, which gives full and perfect satisfaction to all who have used it or seen it in operation. It is not by a combination of rollers, which destroy the grain of the butter, and make it salvy and soft, but my machine will work 300 lbs. per hour, making it perfectly free from milk or brine. It is perfectly simple in construction, easy to be cleaned and scalded, and the most delicate woman can operate it with perfect ease. I have take measures to secure a patent, and if the farmer's wife who made the inquiry, will send me her order with the amount of butter she designs to work at a time, I will furnish the machine at a reasonable price. Geo. B Price, Patentee. *Albany*, (*Shaker box*,) *N. Y.*

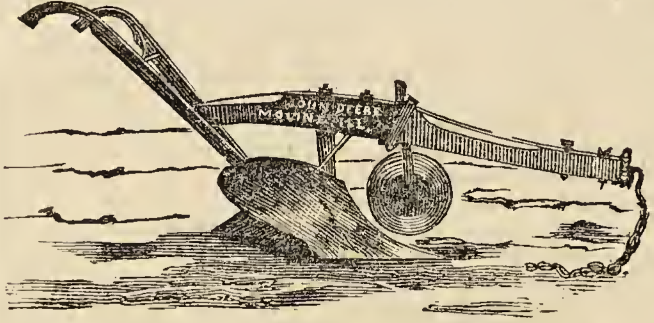
Notes about the West—IV.

Plows—Plow Factories—Corn Planters—New Wheat Drill.

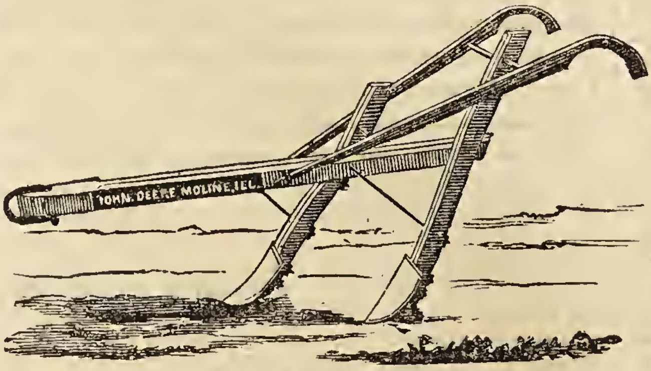
One of the advantages which the prairie farmer possesses over his eastern brethren, is found in the peculiar adaptation of his land to the use of labor-saving machinery. Indeed, without its aid, the large crops of grain could not be harvested, or the necessary amount of hay secured to sustain through the winter the numerous and extensive herds which find rich and free pasturage through the summer on the open prairies. As yet no machine or implement has been found to supersede the plow in the preparation of the soil, nor has any one been able to contrive a steam engine to take the place of the horse or ox as a motive power. That steam can be applied to plowing, has already been abundantly shown in England; but whether it can be used *profitably* is another question. The price for breaking up the prairie is $3.00 per acre, and the farmer, with his own plow and team can do it at a much less cost; and after the soil is once brought into cultivation, a good span of horses will plow from two to three acres per day, as we were assured by several good farmers—thus reducing the expense, as every farmer should keep horses or oxen enough to do his own work, to about $1.00 per acre. That a steam engine can be made to do the work at a cheaper rate, when the investment for its purchase and the necessary apparatus is considered, we have no very sanguine anticipations.



TWO HORSE ROD BREAKER.

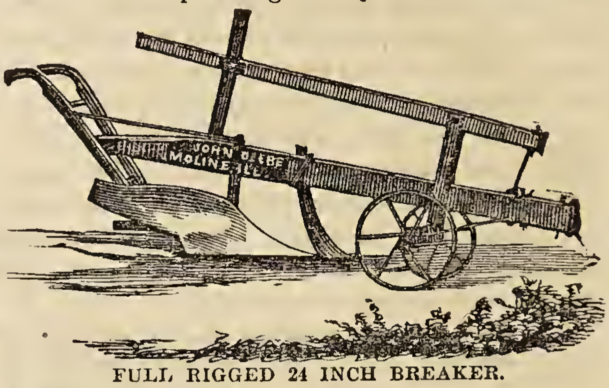


IMPROVED CLIPPER.


JOHN DEERE MOLINE ILL.

DOUBLE SHOVEL PLOW.

The cast iron plow so generally in use in the eastern states, was found not to work well in prairie soil, because it would not *scour;* and several extensive manufactories of plows peculiarly adapted to the soil, have been established in Illinois. One of the oldest of these, is that of Mr. John Deree, at Moline, a thriving town on the east bank of the Mississippi, opposite the upper end of Rock island, the water power used being furnished by the east branch of the river. We spent an hour in examining this establishment with Mr. D.'s superintendent, Mr. D. being absent. From a small beginning several years since, Mr. D. has added from year to year to his works, until they now form one of the most complete and extensive in the country, devoted exclusively to this branch of business. Cuts of several of his plows are given on this page. These are all made of cast steel, and perfectly polished before they are sent out, and are kept bright by use, so that no soil adheres to them. To show the extent of Mr. Deere's manufactures, we may state that during the past year he employed an average of sixty five men through the year—worked up 50 tons cast steel, forty tons German steel, 100 tons Pittsburgh steel, seventy-five tons castings, two hundred tons wrought iron, eight tons malleable castings in clevises, &c., 100,000 plow bolts, and 200,000 feet of oak plank, burning 500 tons Illinois bituminous coal, 75 tons Lehigh coal, and 100 tons coke.



FULL RIGGED 24 INCH BREAKER.

The least number of plows made in any one week, was 56—the highest number, 653—averaging 268 per week, and making a total of 13,400 in a year of fifty weeks. Of these, 800 were large breakers, cutting 18 to 24 inches—1,300 small breakers, cutting 12 to 16 inches—9,000 stubble plows, cutting 12 to 14 inches—1,000 corn plows—300 Michigan double plows, and 100 double and single shovel plows and cultivators.

Messrs. Naylor & Co., the celebrated steel manufacturers of Birmingham, England, from whom Mr. Deere procures all his steel, &c. which he has to import, recently ordered three of Mr. D.'s plows of different patterns, which have been forwarded to England, where we doubt not they will attract great attention. In conclusion, we beg leave to suggest to Mr. D. that two or three of his plows—the large breaker and the double shovel especially—would be a very valuable addition to the Agricultural Museum of the New-York State Ag. Society, and for which the Society would no doubt gladly vote him their thanks.

At Rock Island we visited another Plow manufactory erected the last year by Messrs. Buford & Tate, under the direction of the latter gentleman, who has been long engaged in the business and understands it thoroughly. It is one of the most perfect manufacuring establishments we have ever seen, all its arrangements being admirably contrived to carry forward the work from one machine to another, and from one set of men to another, until the plows are delivered complete in the paint-shop. It is capable of turning out from 12,000 to 15,000 plows a year.

NEW WHEAT DRILL.—At Rock Island we examined a wheat drill, invented by L. O. ROCKFORD of that place, and for which he has applied for a patent. Winter wheat is so generally winter-killed in Northern Illinois and Wisconsin, or at least in such parts of it as we visited, that its culture has been almost given up. This drill is intended to prevent this injury, by placing the seed in rows eight inches apart, with ridges about four inches high between the rows. These ridges it is thought will protect the roots of the plants, and thus save the wheat from being winter-killed. It is worthy of a careful trial, and if it equals Mr. R'.s expectations, it will be of immense value to prairie farmers. Mr. R. is also the inventor and patentee of the "Prairie Razor Reaper and Mower," of which he informed us he had made aabout 200, which had worked to the satisfaction of those who had used them.

BROWN'S CORN PLANTER.—We saw one of these in operation on Buffalo Prairie. It is drawn by two horses, and requires two men to work it, who both ride on the machine—one to drive and one to manage the lever by means of which the corn is deposited in the ground at the points desired. It is said that 15 to 20 acres a day may be planted with it. G. W. BROWN, Galesburg, Ill., is the manufacturer.

Illustrated Annual Register for 1858.

The 4th no. of our ANNUAL REGISTER, for 1858, is now ready. It has been prepared with greater care and expense than either of the previous numbers—includes a greater variety of subjects and innumerable brief but valuable hints, both for the Farm, the Orchard, the Garden and the Housewife, as well as for all who propose to build Houses, or Plan or Improve their Grounds. For summary of contents see advertisement in another column.

☞ Price 25 cents—per Dozen, $2.00—postage prepaid when sent by mail.

MASSACHUSETTS COUNTY FAIRS.

Barnstable,	Barnstable,	October 7, 8.
Bristol,	Fall River,	Sept. 30—Oct. 1.
Berkshire,	Pittsfield,	October 7—9.
Essex,	Newburyport,	Sept. 30—Oct. 1.
Franklin,	Greenfield,	October 1, 2.
Housatonic,	Gt. Barrington,	September 23, 24.
Hamp., Frank., and Ham.,	Northampton,	October 7, 8.
Hampshire,	Amherst,	October 14, 15.
Hampden,	Springfield,	Sept 28—Oct. 3.
Hampden East,	Palmer Depot,	October 6, 7.
Middlesex,	Concord,	September 29.
Middlesex North,	Lowell,	September 16.
Middlesex South,	Framingham	September 22, 23.
Nantucket,	Nantucket,	October 13, 14.
Norfolk,	Dedham,	September 29, 30.
Plymouth,	Bridgewater,	Sept. 30, Oct. 1.
Worcester.	Worcester,	September 23, 24.
Worcester West,	Barre,	September 17.
Worcester North,	Fitchburg,	October 2.
Worcester South,	Sturbridge,	September 30.

Agricultural Fairs for 1858.

United States, at Louisville, Kentucky, September 1—5.

American Institute, Crystal Palace, New-York, opens September 15, and continues two weeks.

Young Men's National Ag. and Mechanical Society, at Elmira, Sept. 1—5.

Springfield Horse Show, at Springfield, Sept. 30—Oct. 2.

PROVINCIAL FAIRS.

Canada East, Montreal, September 16—18.

Canada West, Brantford, September 29, October 2

HORTICULTURAL AND POMOLOGICAL.

Fruit-Growers' Society of Western New-York, at Rochester, September, 18, 19.

Ohio Pomological Society at Cincinnati, September 14—16

☞ North-western Fruit Growers' Asociation, meet at Alton, Ill., September 29.

STATE FAIRS.

Alabama,	Montgomery,	October 27—30.
California,	Stockton,	Sept. 29—Oct. 2.
Connecticut,	Bridgeport,	October 13—16.
Georgia,	Atlanta,	October 20—24.
Illinois,	Peoria,	September 21—24.
Indiana,	Indianapolis,	October 4—10.
Iowa,	Muscatine,	October 6—9.
Kentucky,	Henderson,	October 12—16.
Maine,	Bangor,	Sept. 29—Oct. 2.
Maryland,	Baltimore,	October 21—25.
Massachusetts,	Boston,	October 21—25.
Michigan,	Detroit,	Sept. 29—Oct. 3.
New-Hampshire,	Concord,	October 7—9.
New-Jersey,	New-Brunswick,	Sept. 29—Oct. 2.
New-York,	Buffalo,	October 6—9.
North Carolina,	Raleigh,	October 20—23.
Ohio,	Cincinnati,	September 15—18.
Pennsylvania,	Philadelphia,	Sept. 29—Oct. 2.
Pennsylvania, West,	Pittsburgh,	September 23—25.
Rhode Island,		
South Carolina,	Columbia,	November 10—12.
Tennessee,	Nashville,	October 12—16.
Tennessee, East,	Knoxville,	October 20—23.
Tennessee, West,	Jackson,	October 27—30.
Vermont,	Montpelier,	September 8—11.
Virginia,		October 28—31.
Virginia, Western,	Wheeling,	September 16—18.
Wisconsin,	Janesville,	Sept. 29—Oct. 2.

NEW-YORK COUNTY AND TOWN FAIRS.

Albany,	Albany,	September 15—17
Allegany,	Angelica,	October, 1, 2.
Chenango,	——,	September 22—24.
Cortland,	Homer,	September 15—17.
Delaware,	Andes,	Sept. 30—Oct, 1.
Franklin,	Malone,	September 23—25.
Jefferson,	Watertown,	September 16, 17.
Livingston,	Geneseo,	September 24, 25.
Monroe,	Rochester,	September 21—23.
Ontario,	Canandaigua,	Sept. 29—Oct. 1.
Orange,	Goshen,	Sept. 29—Oct. 1.
Orleans,	Albion,	October 1, 2.
Queens,	Jamaica,	September 24.
Rensselaer,	Lansingburgh,	September 15—17.
Saratoga,	Mechanicsville,	September 15—17.
St. Lawrence,	Canton,	September 16—18.
St. Lawrence International Ag. and Mechanical Soc'y,	Ogdensburgh,	September 9—11.
Wayne,	Lyons,	September 16—18.
Westchester,	Sing Sing,	Sept. 29—Oct. 1.
Essex,	Elizabethtown,	September 10, 11.
Palmyra Union,	Palmyra,	October 14—16.
Columbia,	Chatham 4 Cor.,	September 23—25.
Steuben,	Bath,	Sept. 30—Oct. 2.
Lewis,	Turin,	September 23, 24.
Skaneateles,	Skaneateles,	
Oswego,	Mexico,	September 16—18.
Schuyler,	Watkins,	October 1, 2.
Yates,	Penn-Yan,	October 8, 9.

NEW-HAMPSHIRE COUNTY FAIRS.

Sullivan,	Charleston,	September 23, 24.
Hillsborough,	Milford,	September 30.
Rockingham,	Exeter,	October 1, 2.

VERMONT COUNTY FAIRS.

Addison,	Middlebury,	September 23, 24.
Champlain,	Vergennes,	Sepetmber 17, 18.
Franklin,	St. Albans,	September 23, 24.
Orange,	Chelsea,	September 23, 24.
Rutland,	Rutland,	September 16, 17.

Notes in Steuben—I.

MAJOR DICKINSON'S FARM—SITUATION—CROPS—MEADOWS AND THEIR MANAGEMENT—IRRIGATION—DRAINING,-SEEDING AND MANURES—PASTURES, ETC.

Hon. A. B. Dickinson is the possessor of some five thousand acres in the town of Hornby, Steuben Co. Corning, at a distance of a few miles, is situated, as our readers are aware, on the Chemung river—just below where the Conhocton, Canisteo and Tioga unite under this name, and carry the drainage of a considerable territory, embracing portions of Steuben and Allegany in New-York, and Tioga and Potter counties in Pennsylvania, through the Susquehanna until it finally reaches the ocean at the Chesapeake. Springs on Major Dickinson's farm also find their way to the Atlantic through Seneca Lake and the St. Lawrence. And, at a distance of not many miles to the westward, other waters turn their current toward the sources of the Ohio, and after the longest and most winding course of all, at length reach the sea through the Father of Waters and the Gulf of Mexico. Corning is likewise on the line of the Erie railroad, and forms the terminus of connecting roads to Rochester and Buffalo, and of that extending up the valley of the Tioga to the mines of bituminous coal at Blossburg.

The valley of the Conhocton, nowhere apparently very wide, is generally skirted by rather abrupt acclivities, some of them under cultivation, but more still unimproved, while a few have not yet been shorn of their timber. After surmounting these hills however, one comes to a rolling and quite well farmed tableland, in soil mostly of a stony clay, and adapted for a grazing or dairy, rather than a grain-growing region. Springs are very abundant, but drainage is easily secured. The water is soft, and of good quality. Excellent wheat is grown; corn requires considerable manuring, but in the grasses, is after all to be found the real wealth of the land, and its main products appear to be fat stock, butter, cheese and wool. Skillful cultivation can also make it yield great root crops.

In Grass Major D.'s particular "specialty" consists. He has nearly three thousand acres under his own farming. Of these, a hundred and fifty or two hundred may be in wood, or in low spots not yet drained and made productive. Six hundred are divided about as follows: In oats, 200; spring wheat 100, and winter wheat, 50; barley, 75; potatoes, 60; buckwheat 50, and turnips 40; of the other 25, a few are in peas, and the remainder in a mixture, to which we shall refer again, intended chiefly for hog pasturage. Seven hundred acres more lie in meadow. The remainder of the farm is pasture. To carry all this on, requires a degree of energy, industry and sagacity which few men manifest, whatever pursuit they follow—fewer yet, it may be, among farmers, who were they gifted more generally with a share of our host's agricultural ambition, if we may call it so, would be wealthier men and lead more confortable lives at this day. But the temperament of Major D. is such that he finds it difficult to restrain his attention even to the wide responsibilities of so large an estate; and so far as our observation extended as to his management of it, he manifests unusual skill in the adaptation to individual circumstances and purposes, of the true Science of Rural Economy—the use of the land at best advantage, both future and present—the permanent increase of its fertility at a profit to its owner.

Personal inspection of the Major's Meadows and Pastures will make us more eager to obtain a hint or two as to the causes of their productiveness,* for he has not been hay-making and grazing for upwards of 30 years, without profiting from the lessons of experience, and becoming less and less disposed to be beaten by others in the quality and quantity of his grass crops. Rather his choicest meadow is a lot of some twelve acres, of which he promises when the hay is cut and cured, to report the yield by accurate measurement and weight, for the benefit of our readers. It has not been plowed for upwards of twenty years, and Major D.'s experience convinces him that no acre can be laid off in the whole of it, which will produce less than *three and a half tons.* The rain and wind when we first saw it had beaten the grass over a little, but it was too tall and thick to suffer, and the next morning stood as straight as possible from bottom to top. We go a little way through it, spreading the tops back with our hands to make a passage. The heads of the timothy average nearly four feet high, presenting as smooth and even a surface as any grain field; just below them are the branching panicles of red-top, high enough and thick enough to make a heavy crop alone. Then a little further down stand the spikelets of blue grass,—[this may not be the genuine Kentucky blue grass, although the seed was purchased as such, and it has consequently borne the name]—then there is a considerable growth of red clover, and below all an undergrowth of white clover—so that, at the bottom, the thickness of the stalks is perfectly surprising; the different varieties, maturing at different heights, apparently do not interfere, but on the contrary brace each other up most perfectly against winds and storms, while strange as it may seem to those accustomed only to the scant meadows and pastures too universally seen, chickens could not penetrate among them, and we doubt very much whether a calf a month old would attempt it. Now, two tons is a pretty successful grass crop anywhere; double it, or nearly, and it can be imagined that the above is not an exaggerated description of the result. We doubt whether this field has its parallel; if it has, we should be pleased to hear from the owner.

Next we visit *one field of nearly one hundred and eighty acres*, which earlier in the season Major D. estimated as fully equal to the one we leave. It has not, however, been seeded down so long, and appears during the last few weeks to have grown up a little higher, with somewhat less thickness. But it is probably not more than half a ton lighter to the acre; and certainly very much exceeds, not merely in extent but in productiveness, anything within the knowledge of the writer. With the exception of the shoots from the roots of a few trees recently cut down, there is nothing to be seen across it but the waving surface of the timothy, and on nearer inspection the heads of the red-top which come just below the others. The field is *full*, close up to the the walls, and the stalks reach an even height of nearly four feet and a half—and still more in the lower part, where we pulled two but very little above their neighbors, and found them to measure *five feet and an inch.* We went together some distance through this field, and where there had been a road to the hay stacks in the spring, discovered to the chagrin of the Major a few clumps of the pernicious ox-eye daisy, the seeds of which he supposed to have been scattered by his neighbor's teams in drawing hay, but which—as he believes in the entire eradication of every weed or plant except those he wishes to grow—were by no means a pleasing surprise. Excepting these and the tree-suckers alluded to, we do not believe there was any thing on the whole 180 acres, that was not there of right. It is a beautiful sight to look, for a full mile, across such a field, and one that it would be well worth going a considerable distance to see. Lowering one's eye to the level of the grass, no boundaries were within range of vision; it stood higher than the walls and fences of the field. And the next visitor will not encounter the daisies, let him look ever so closely—Major

D. detached a force of hands and hoes that afternoon to cut off the untimely visitants.

It may be thought that this long description of a couple of meadows, is a waste of room and words, but extended as it is, the time taken in writing it is not so great as that we spent in looking at and admiring them. And if the thought occurs to any incredulous reader to "see what he can do," the following hints may assist him.

To begin with, it is a part of Major D.'s theory that the older a meadow or a pasture, properly cared for, the better the grass in quality and the greater the quantity. And he would never break up the sod, except in cases where the ground is so rough and stony that a mowing machine cannot work in it. He then plows, manures, and puts it in some crop requiring considerable cultivation, such as potatoes, other roots or corn, generally the last, picking up and removing the larger surface stones which are loosened up by the plow. In addition, he is now taking every such opportunity to turn the courses of the streams so as to enable him to irrigate all his fields at pleasure. To this process we must devote more space, as it is one little used as yet in this country, compared to what it would be, were it generally known how simply it can be accomplished.

HOW MAJOR DICKINSON IRRIGATES.

He plows a straight channel for the stream or streams he wishes to employ, and so numerous are the springs over his farm, there is some one running nearly everywhere he wants it. This channel is carried over the highest possible part of the field in a direct line; the old channel or channels are filled with stones, making in effect good underdrains, and the soil plowed over the top. The land is plowed in furrows leading from the new channel in whatever direction, straight or crooked, the surface renders necessary in order to give them a regular and moderate decline. Then the water collected by a dam above is turned on, and made to fill these furrows, by means of which it reaches every part of the field, requiring no other assistance than the supervision of one or two men with their hoes to prevent obstructions and secure its complete distribution. Major D. is extending this system to every part of his farm by degrees, and hopes ere long to be able irrigate the whole of it, at little expense either of time or labor. He has had one stream some time under control in the way specified, and the effects of the process have been of the most marked and satisfactory character. He very much increases its fertilizing nature by the following means. A small patch on which the water collects when the stream is dammed up, to the depth of a foot or two, is thoroughly harrowed up, while the water is upon it, having been previously plowed, and the turf upon it burned to ashes. The result is, that the soil is thoroughly intermingled with the water, and is deposited by it wherever it goes in a fine top-dressing like the natural washings of a stream. A quarter of an acre will thus furnish a large surface for years with a manure which will ere long render it, as Mr. D.'s experience shows, too rich for many crops, and exceedingly productive of roots, or grass, or corn. On a small patch thus treated, he has raised so heavy a crop of carrots that he scarcely dares tell the story.

DRAINING

He performs much more cheaply and he thinks as thoroughly as by the use of tile. He has several lines of stone under-drains laid, but depends mainly upon the use of a plow so contrived as to bore a channel at the desired depth below the ground, without turning up any of the soil—requiring considerable power in the team and strength of materials, but by means of a thin and sharp coulter of the requisite length, and a conical shaped attachment at the bottom, leaving a smooth burrow, which in his stiff soil he expects to last a long time. We did not see the implement, as it was in course of some repairs and improvements. We believe when thus improved it is proposed to patent it, and if it performs all that the Major's experience would lead us to suppose, it will certainly be a great acquisition to every farmer on similar soil. By its aid he has drained very largely, and he tells us very effectively.

SEEDING—PLASTER—ASHES, &C.

In seeding, our friend employs a mixture in about the following proportions: timothy 1 peck to 10 qts.; of red and white clover each one quart; and of red-top and blue grass, sufficient to make half a bushel, for one acre. This seed, like every thing else, he rolls in tar and plaster, (in the case of wheat and barley he substitutes lime.) The tar is diluted with hot water, and it is very little trouble to coat each seed thoroughly, when the plaster adheres to it, and from thus being brought into immediate contact with the seed, is thought fully as effective, as a manure, as a very much larger quantity would be if applied in any other way. A half-pint of tar in five or six gallons of hot water, we were told would coat a bushel of wheat with another of plaster or lime, and the proportions required for other seeds are probably the same.

In the subsequent management of his meadows Major D. calculates to give an average annual top-dressing of about a bushel of plaster to the acre—frequently finding it more convenient to apply double this quantity each alternate year But his manufacture of *Ashes* deserves more particular notice. He plows up the turf along his road sides, and after a few days' drying, burns it in heaps, of which one man will attend several; they continue burning about a week, and each heap will give upwards of a hundred bushels of the ashes—a rich, dark, fine mass of burned vegetable matter, roots and tops and charred mould, the appearance of which would satisfy any one that it must be a valuable fertilizer. On the side of the road, extending for about 80 rods, a breadth of a rod or two burned last fall, had yielded upwards of 1,500 bushels, computed roughly and at a low estimate. One hundred bushels makes a good manuring for an acre of grass, and can be produced for a dollar, and spread on the field for another dollar. It is his idea that he will shortly be able to dispense at least partially with plaster, of which he now buys annually a hundred tons, substituting these ashes in their stead. We saw several heaps, the surplus of the last burning, and are convinced that they must be of the greatest value in proportion to their cost.

As an evidence in support of the general impression that the effects of plaster are derived from its faculty of absorbing ammonia from the atmosphere, Major D states that nowhere are they so plain as on exposures toward the prevailing direction of the winds. And if he applies it to fields on three sides of another which receives none, the latter will be reduced to such a degree of unproductiveness, as at least to become unprofitable for cultivation.

With a few words in reference to Major Dickinson's idea of Pastures, we must close for the present. He practices extensively, grazing and mowing from the same field—not very strange, when his pastures much of them nearly reach the average meadows of many farmers, and would perhaps half of them cut from a ton to a ton and a half to the acre. But he does not wish to rob the soil. It is good economy to leave a covering on it over winter, and not to pasture in spring till there is something to eat. What portions he mows one year he will let the stock graze the next, and he finds they select the grass here of their own accord, suffering the remainder to grow to greater length, and apparently preferring the taste of that mown the year previously. Springs of water he carries into troughs accessible to the cattle, and the surplus is stoned up in a channel or otherwise disposed of so that the cattle cannot stand in mud and water half the day.

Those who have read this paper for a year or two past, will not need to be reminded of Major D.'s antipathy to shade trees in pastures. The cattle are lying under them, he says, all the time the sun is high, doing their eating morning and night when the dew is on the ground, and the wet grass fills them up without supplying near the nourishment or being taken in near the quantities it is when they are kept leisurely at it all the day. To coax stock, both working and fattening, as well as his human assistants, to eat all they can, is a cardinal principle in his economy. There is no danger of overloading *his* stomach, who does a good day's field work, if healthy and properly prepared food is ever so abundantly provided.

We have already hinted how cruel and murderous a disposition Major D. habitually manifests—towards the weeds. Herod did not exterminate the young children of Bethlehem with more unappeasing zeal. Neither his rail fences, nor his neat and substantial walls (of which hereafter,) does our friend desire to be overgrown with briars or berry bushes. Daisies are his detestation, and against all the host of their companion trespassers on cultivated lands, he raises an unrelenting hand,—and, it may be added, they don't like this spirit of opposition, and very generally retire defeated, one after another, until the cleanness of nearly all his fields and road-sides has become a remarkable feature in his farming. He finds the cattle and sheep very useful auxiliaries—the bushes and briars which are to be cleared away he sprinkles with salt occasionally, and they speedily receive a degree of attention from the stock, incompatible with renewed vigor another year, and generally making them weary of life in a single season.

The Apiary.

Position of an Apiary.

There is no dobut that bees, to a certain extent, will thrive anywhere, so long as they are protected from moisture and undue heat and cold. The *first hive* of which we have any record was in the carcass of a lion, (Judges, xiv: 8.) and from that time to the present, they have been found in chimneys, garrets, steeples, barns, and the last most fanciful place we have heard of was in the body of a wooden rooster which served for a weathercock upon a church in Georgia. The *best habitation*, however, is in a well made *wooden* hive, so constructed as to resist extremes of heat, cold, and dampness, and placed in the open air. It should be *near* the ground, (not more than 3 or 4 inches from it,) resting upon a platform which should extend at least 8 inches in front of the mouth of the hive. We shall give reasons for this, and endeavor to anticipate objections. The bees darting down from a great elevation, with a heavy load, readily lodge upon such a platform, and easily run to the entrance; it also enables the little creatures to stand about the door-way and guard it against intruders. Any one who has watched a hive in the spring and fall, or upon the coming up of a sudden shower in mid-summer, must have noticed how many fall short where there is only an inch or two in width for a landing place. If the hives are up one, two, or three feet from the ground, the bees are chilled, and in the spring (the most important season) hundreds of the most active bees perish. We only ask a little attention to this particular, and the fact will be so verified that we are sure the bee keeper will at once lower his hives for the sake of utility, if not humanity.

Hives should face a little to the East of South. As "early birds catch most worms," so early bees do the most work; the platform is dried sooner, and enables the workers to enter without being chilled. Again, hives should stand clear of fences, or anything which may cast a shade around the hive in the latter part of the day. It is a matter of life and death whether the bee falls into the shade or sunshine upon returning home with his load of pollen, in the months of March and April, particularly if the air is cold. If in the sunshine, the bee takes breath, recruits, and makes another trial to reach home, but if in the shade, nine times out of ten, he stays there and dies. This may seem a small matter, but where there are ten stocks I have no doubt enough bees are lost to make a swarm. I have picked up sometimes fifty in a day under one hive. If the sun can shine all around a hive it is a *good position.* It may be said that hives in a low position will be troubled with insects; such has not been my experience—even ants are kept at a distance by the vigilance of the bees.

With regard to *Bee-Houses*—it will be found that the evils resulting from heat, (even in those best ventilated,) the facility with which moths secrete themselves, the difficulty of manipulating the hives, the height of entrance from the ground, the shade cast by the house, not to say anything of the expense, will more than counterbalance any benefits which may arise from superior protection.

For *large* apiaries of one or two hundred hives, a house is out of the question. I hope yet to see apiaries on a large scale managed in the open air, and I am confident that the income from one hundred well conducted stocks, where there is good pasturage, will afford an income of *at least* $600 annually.

This however implies much attention, study, patience and perseverance. There are few places where one or two hives may not be kept, and those are in the centres of large cities and towns; but we would advise no one to commence bee-keeping with more than two hives at first, especially if he has had but little experience. Apis. *Whitemarsh, Penn.*

The Poultry-Yard.

Leghorn Fowls.

Messrs. Editors—I confess to being a "Fowl-fancier." I took the "hen-fever" the "natural way," and have for several years experimented in a small way with most of the different varieties of domestic fowls "we read of."

Last year, however, I came across a kind that I had not seen described in the books, viz, the "Leghorns;" and as soon as convenient I procured a trio of them, and commenced the study of their peculiarities.

Of course my experience with them has not been of very long duration, but it has been long enough to convince me that they are a very valuable variety, and possess, in a high degree, the qualities most prized in fowls, viz, hardiness, early maturity, and fecundity.

I kept them last winter in a common barn, in one corner of which, in a room with an open window, they roosted, and they showed their hardiness by laying when it was cold enough to almost freeze the egg while under them. The young chicks are strong and active, and their precocity is remarkable; I have known the cockerels to crow before they were three weeks old, and the pullets will lay at four months.

The large size and brilliant color of the comb and wattle of the young cocks, with their impudent and consequential strut and swagger towards the hen, make them very attractive and amusing.

As to their laying qualities, I can only say that mine commenced in January last, and there has been no week since in which they have not laid more or less. Since the first of April, I think may Spanish have excelled them, but the Spanish are shy layers in cold weather.

The Leghorns bear confinement well, and keep themselves neat and free from vermin, if they have a chance to dust themselves; they are seldom or never inclined to set, and from the rich color of the leg and skin must make handsome poultry. There is but one objection that can be offered against them, in my opinion, and that is, that they are rather under the average size of common fowls. But if that be considered an objection, I think it more than counterbalanced by their early maturity, the compactness of their build, and the fineness of their bone and quality of flesh. They show also, in a marked degree, the sure indication of a distinct variety—i. e., "fixity of type," and are therefore deserving a place in the "books." Yours truly, T. A. D. *Chicopee, Mass., Aug.*, 1857.

The Cherry Tree—Remedy for Black Wart.

This is a valuable fruit. Of late years, however, a disease called the "black wart," which is developed on the limbs, and known to be produced by an insect which selects the soft and yielding cuticle enclosing them as a *nucleus* for its young, has tended greatly to abridge their cultivation. Many who have been extensively engaged in raising cherries for the market, and who derived a large profit from that source, have renounced the business as no longer practicable, and cut down or eradicated their trees in despair. The wart, when it first makes its appearance, is a mere slight intumescence, of a greenish color and somewhat rough surface, resembling very nearly the wart on the human skin. In a short time, however, it assumes a darkish color, and finally becomes indurated and dry. On examining it critically, its texture is found to be vascular, somewhat like a sponge, and every cell or cavity to contain an insect similar to the small maggot which infest cheese. These, in time, become winged insects, eat out of their vascular habitation, and resume the depredatory instinctive operations of their progenitors of the year before. The remedy is, however, in our opinion, very easy. It consists merely in cutting out the excrescences, or abscinding the limbs as fast as the former are developed. This is readily accomplished, and if the infected are burned, and the stumps carefully secured with wax or some other efficient protection, the health of the trees will not be injured; their fruitfulness will remain unimpaired by the operation, so far as the unmutilated branches are concerned, and no injurious effects will result if the disease is taken in its incipient stages. The same disease is common to plum trees, and the same course of treatment is recommended as in the case of the cherry. *Thoroughness* in the operation is quite indispensable to success. M. W. *Saco, Me.*

Culture of Top-Onions.

Messrs. Editors—In response to the inquiries of O. L. DeForest, in the Co. Gent. of the 2d July, permit me to say that "top onions set out this spring, will, if preserved over until the next season, produce top onions again," so long as he may choose to cultivate them properly. There are some fine ones growing in my garden that were planted last year, and permitted to remain out all winter without protection, not having suffered the least injury apparently from the extreme cold to which they were exposed.

Top onions may be cultivated for the seed bulbs in a permanent bed without replanting, for a succession of years, producing more seeds the second and perhaps in succeeding seasons, than in the first.

For this purpose select a convenient plat or border in the garden, and having properly prepared it by richly manuring and pulverizing the soil, plant the bulbs in rows one foot apart, and keep them from weeds, and the ground well stirred during the season. In the fall after gathering the seed, cut off the seed stalks and cover the bed an inch or two with well rotted manure or compost, and thus continue the culture year after year, taking care to keep them properly thinned, as they are inclined to multiply and throw up too many seed stalks after the first year.

The different varieties of the "black seed" onions may be cultivated in a similar manner, by sowing the seed the latter part of August or first part of September, taking care when the bulbs are desired to remove the seed stalks as fast as they show themselves in the spring. They will survive the winter without protection, but a good coat of manure or compost will accelerate their growth and increase the product. In applying the manure, be careful not to cover the tops of the onions, and keep them well cultivated in the spring, and in due season your labor will be rewarded by a goodly supply of early onions, though not so fine as those raised from spring sowing.

When *seed* only is desired, then onions may be cultivated precisely as the top onions, with similar results, year after year. Wm. B. Downer. *Peterboro, N. Y.*

Cure for Sweney.

Messrs. Editors—I notice an inquiry in the "Cultivator," as to what will cure the sweeney. I had a valuable horse that was badly affected with the sweeney, and after trying many remedies that were proposed to me, such as rowelling, inflating with wind, &c., all of which utterly failed, a friend gave me the following recipe:

1 ounce laudanum,
1 " camphor,
1 " spirits hartshorn,
1 " spirits turpentine,
1 " Castile soap,
3 " alcohol,
1 gill sweet oil,

which was prepared by an apothecary at a cost of only 75 cents. The affected part I had well rubbed twice a day for one week, when a perfect cure was effected. It is a certain cure, and easily tried by any one having a horse suffering from this disease. John C. Holland. *Catonsville, Md.*

Eds. Co. Gent.—In the last number of your paper is the question, what *will cure sweney?* A few years ago I had a young horse afflicted with sweney, and had become quite lame. I tried the usual remedies in use in the neigbborhood, without any change for the better. I was receiving the Ohio Cultivator, and in that was a receipt for the cure of sweney. I used it with perfect success. The receipt was as follows:

Cure for Sweney.—One pint of turpentine, one oz. of Spanish flies, half a pound of lard, half a pound of rosin—melt the lard and rosin together. As it cools, add the flies and turpentine.

Apply it to the affected parts, and rub well with the hand. In two or three days rub again—that will take off the hair—then rub again, and it will blister. If three applications do not cure, then continue it till it does cure. It will cure, I am confident, so much so that I would not be without the knowledge of it for the price of three good horses at least, for I have cured that many. Smith Wilson. *Hocking, O.*

How to Break a Cow of Sucking herself.

Take a stick some two or three inches in diameter, and from 2½ to 4½ feet long—the length depends on the size of the cow—the larger the cow the longer the stick. Make a mortice an inch and a half or two inches wide in each end, and put the stick between the cow's fore legs, and buckle a strap that is passed through the mortice in the stick just behind her fore legs, and fasten the other end of the stick in the same manner around her neck. Neither of the straps need be buckled very tight. H. Williamson. *Chester Co., Pa.*

Inquiries and Answers.

Bone Manure.—Can you tell a common farmer, who knows nothing of Chemistry, what to do with the bones of his slaughtered animals? there being no such thing as a bone-crushing machine in his neighborhood. Don't tell him to dissolve them in *nitric acid*, or any other preparation *from below*, but simply how he had better use the bones instead of letting them bleach on the surface of his fields. X. *Cleves, Ohio.* [There is no process for reducing bones effectually, other than grinding, or cracking, and dissolving in sulphuric acid, that has been well established by successful experiment. Fermenting with wet ashes is imperfect, and not very economical of fertilizing material. We have been informed that fresh bones, mixed with strong horse manure, and then the whole subjected to vigorous fermentation, would reduce the bones to a pulpy mass, rendering them easily worked down and mixed with the materials of compost. We would recommend our correspondent to try this method, and when the process is completed, to mix the manure and bones, after well chopping them up, with turf, loam, or ditch scrapings, so as to make a good compost. We cannot insure success, but should it succeed, it would prove quite valuable.]

Grass for Lawns.—I wish you would inform me what the best grass for a lawn is. Also where the seed can be obtained. Likewise what the price of white clover seed is by the pint, quart, or by the pound. A. A. Cole, P. M., *Flowerville, White Co., Ind.* [A *mixture* of grasses is best for lawns, because some one or more will be green and flourishing while others may have passed the season of luxuriant growth. Some of the best grasses for this purpose, are, Red-top, June grass or Kentucky Blue-grass, Sheep's Fescue, Creeping Bent-grass, Sweet scented vernal grass, Wood Meadow-grass, &c., with a portion of White clover. J. M. Thorburn & Co., of New-York, and other seedsmen, sell a good mixture of grass seed for lawns, from three to four dollars per bushel, and white clover seed is sold from 30 to 50 cts. per lb.]

Value of Black Oats.—I should like to be informed through the "Country Gentleman" of the value of the dark colored or black oats, for feeding horses. I mean the comparative value with the common kind. Jas. Jackson. *Boston, July* 13. [We are not aware that analysis has ever indicated any difference in the composition and quality of oats of different colors, for a given weight. If any reader has any positive knowledge on the subject, he would confer a favor by furnishing it.]

Cider Mills.—Will you advise me through your valuable paper, which is the best cider mill in use—of compact shape—*not liable to get out of order*, and whose *merits* have been *fairly tested*—by whom made, and where can I get it, what price, &c.? W. C. Y. *Jessamine Co., Ky.* [There are several good cider mills manufactured—one at Harrisburg, Pa., by W. O. Hickok, and two in this city—one by R. H. Pease, and the other by Emery Brothers. Which is best is not for us to decide.]

☞ A Farmer wishes to know what is the cause of, and also the remedy for the somewhat *cotted* and yellow appearance of the wool nearest the sheep when sheared.

Burning Lime.—Will you, or some of your correspondents (who have experience in the matter) be kind enough to favor me through the pages of "The Cultivator," with the modus operandi of burning lime *with wood*, in the best and most economical manner? I wish to burn from 3000 to 5000 bushels per annum, and with as little outlay as may be practicable. If you or any of your correspondents will furnish the desired information with full and explicit directions with regard to the kind of kiln, the cost, &c., &c., they will greatly oblige, J. K. *Frederick Co., Va.*

The Peabody Strawberry.—In answer to inquiries, we can inform our readers that another year will be required to test the value and adaptation of this famed variety to the Northern States. It is always extremely difficult to send strawberry plants long distances with the best of packing, and for this reason those cultivators who have been most successful with their plants received this spring, have barely saved them alive. They are, however, growing finely, and will be in the best bearing condition another year. The editor of the Horticulturist received this season from Columbus, specimens in a box in bearing, which had been sent three hundred miles to Savannah and eight hundred more by steamer to Philadelphia. The late frosts had injured the fruit and lessened its size—the berries were consequently smaller than expected, but the flavor was pronounced "excellent."

Bog Lime.—*Messrs. Editors*—Permit me to inquire through the columns of your much esteemed Co. Gentleman, the value of marl, a great part of which compares with slacked lime, other parts well mixed with shells. I have taken the liberty to enclose a parcel of said composition for your inspection, so as to give counsel. There is abundance of it on my property, one hundred rods from Mississippi river. Labor is so high here, and both bottom and prairie land is so rich, that it don't require it at present. If dried and burned, would it become lime, as lime is valued at three dollars per barrel—or what value said bog lime is? J. S. *Clear Water, Minnesota.* [The specimen sent, seems to be an impure shell marl, disintegrated, and mixed somewhat with the materials of the adjacent soil. There is no doubt it would be an excellent application to all land capable of being benefitted by lime. We would recommend our correspondent to try it, by giving a portion of his farm a dressing of a hundred bushels or two per acre, and greater and less quantity may be used on different plots by way of experiment, and the results observed. It must be remembered that marl can never take take the place of yard manure, and is to be applied only in connection with other fertilizing materials, to such soils as are more or less deficient in carbonate of lime, experiments affording the best proof. Pure shell marl makes excellent lime by burning, and by selecting the cleanest portions for this purpose, a good business might be made. A small kiln may be tried.]

Coal Tar, &c.—Please advise me whether cotton cloth, fastened to sheeting and covered with coal tar and sand, will make a durable water-proof roof; or, if this is liable to melt and run, what substance should be mixed with the coal tar to harden it, and the proportions? Also whether coal tar will prevent posts in the ground from rotting? U. Turner. *Jackson Co., Mo.* [We have never seen coal tar used as proposed, but do not perceive why it should not succeed. Coal tar has often been mixed with sand and fine gravel, for forming walks on side-hills where they were otherwise liable to wash; the sand stiffened it sufficiently, and it kept its place perfectly. We would recommend the tar to be made quite warm or hot, and then mixed to a consistence of thick paint with clean sand, and applied with a fine wire brush. We have used it with great success on perishable wood, exposed constantly to air and moisture, where it acted as a perfect preservative; and if posts could be soaked some days in it, while hot, it would undoubtedly render them very durable.]

Raspberries from Seed.—Please inform me when is the proper time to sow Raspberry seed. I wish to make a plantation of about three acres from the seed. C. B. B. *Janesville, Wis.* [The spring is the proper time to sow raspberry seed. It is a difficult matter to make it vegetate, however, and we would advise our correspondent, if he wishes a raspberry plantation, not to try to get it from seed, but to buy 50 or 100 plants of several of the best varieties, for trial. From these he can rapidly enlarge his plantation, selecting such variety or varieties as he may find best adapted to his soil and climate.]

Works on Bees.—Is there any good work published on the culture of Bees? I wish "Apis" would be a little more explicit in regard to his mode of treating Bees. I refer to No. 1, Vol. 10. Robert H. Bishop, *Burnsville, Ill.* [There are three one dollar books published in this country—one by Mr. Quinby—one by Mr. Langstroth, and one by Mr. Miner—on the management of Bees, but we cannot decide which is best. We second our correspondent's call on "Apis," and hope he will favor our readers with his mode of managing Bees.]

Mackay Pigs.—*J. H., New-York.* This breed of swine, if breed it may be called, was originated by Capt. John Mackay of Boston, many years since, by crossing several breeds which he had collected from various parts of the world. They fattened kindly, attained great weight, and were, very justly, highly prized; but no one having had the forethought to preserve the breed, they long since run out.

"Garbinzos."—In reply to your appeal for the signification of this "mysterious word," I would refer you to Dr. Darlington's "Agricultural Botany," in which you will find the mystery sovled in a very few words. *Garbanzo*, (incorrectly printed "Garbinzos" on the Patent Office labels,) is the Spanish name of the common Chick pea or Coffee Pea—the *Cicer arietinum* of botanists—frequently cultivated in gardens, and no doubt known to most of your readers. The Doctor makes the following remark on this plant:—"This vetch is occasionally cultivated for the *seeds*, which are said to afford a tolerable substitute for *coffee*. Coffee drinkers, however, are not apt to admire *substitutes* for their favorite berry, and it is hardly likely that this plant will ever be of much account in our country. L. *Chester Co., Pa.*

Hop Culture.—I would be much pleased if some of your subscribers could oblige me with the mode of cultivating hops, their mode of treatment, also what kind of soil, how prepared, what the probable cost per acre, and probable average yield. All information on the subject gladly received. H. S. *Covington, Ky.*

Analysis of Sweet Potatoes.—Can you give some information of the analysis of our common sweet potato? If I knew what they contained by analysis, I think I could prepare land to grow them better. O. C. A. [We are not aware that any analisis has been made, that can be relied on for accuracy.

Bone Dust.—I wish to be informed as to the best mode of applying bone dust, and what quantity should be put to the acre to make good wheat and a crop of clover. W. R. H. *Emmorton, Md.* [Bone dust is but little used in this vicinity, most of that manufactured here being sent to Philadelphia and Baltimore. We hope some of those who have used it will furnish the information desired by our correspondent.]

Smooth head Barley.—Will you or some of your subscribers be so kind as to tell where I can procure the Smooth head barley, both spring and winter, or either? J. H. *Monticello, Ill.*

Smut in Wheat.—What is the cause of smut in wheat? Will smut grow? If not, why is it that wheat sown with smut in it, the smut will increase from year to year? What is the best manner to prepare seed wheat to prevent the smut? J. P. E. *Ellettsville, Ia.* [Smut is a parasitic fungus—(a plant of the puff-ball tribe,) which grows in the head and destroys the grain. It has numerous microscocio seed, so minute as to be carried through the sap pores, and in this way old seed wheat covered with this fine, dusty seed, will infect the grain of the new plant. Washing the grain repeatedly in brine, and rolling it in dry, water-slacked lime, before sowing, will prevent the smut.]

Hard-finish.—I wish to learn the nature of "hard-finish," so much used for inside ceiling, and the processes to which it is subjected before use. The motives that have prompted me to make this inquiry are, viz.: There is in this vicinity a large pond, fed by a never-failing spring, which has for years been a great resort for speculative and scientific minds. Its bed is a fathomless mass of pure white marl, and of no value save as a good manure. But others, upon recent investigation, have made its value almost incredible by pronouncing it a genuine article for the inside ceiling of houses. Being perfectly ignorant in regard to the latter opinion, I resort to the "Country Gentleman" for an answer to the above inquiry, wishing to satisfy myself as to its real value, nature, and most practical use. A Subscriber. [We must refer to such of our correspondents as are practical builders, for the details in making *hard-finish*, but if we are correctly informed, it is either plaster of Paris, hardened on the walls, or a mixture of perfectly clean *white* sand, with pure, white, fresh lime—the mixture gradually becoming hard on the walls like other lime and sand mortar. The marl in the bottom of the pond, evidently cannot be used for this purpose, because it is already a complete carbonate of lime, and cannot harden by union with sand; and if applied alone, it can never become harder than an application of pulverized chalk or whiting.]

Piggery.—I intend to build a pig-pen next month. Can you furnish me with a design, or with some practical hints for the proper construction of one? I have 20 spring pigs to fatten this fall, principally on corn. Jno. B. Wyckoff. *Hightstown, N. J.* [The Rural Register for 1858, which will be published in a few days, gives a convenient plan, view, and description of one—to which we refer our correspondent.]

Washing Machine.—In the "Register" for this year you describe and recommend a washing machine. Can you inform me where such a one can be had? and oblige C. W. S. [We do not know who manufactures the washing machine at present—perhaps some of our subscribers may give the desired information.]

Lime for Preserving Apples.—Will you detail the mode of preserving apples by the use of lime? when and how it is applied—whether slacked or unslacked lime be applied, and whether the delicacy of flavor is at all affected by its use? H. *Mt. Vernon, N. Y.* [The effect of lime appears to be two-fold—as an antiseptic, and as an absorbent of unnecessary or improper moisture. Apples may be kept by the following process, in excellent condition: Procure tight barrels, place a layer of wheat chaff on the bottom, over this sprinkle lime, and then deposit a layer of apples—then again a layer of chaff and lime, and of apples, till the barrel is full. To prevent lime-dust touching the apples, a little chaff may be strewn over it before the apples are placed upon it. A quart of lime for a barrel will be sufficient. The fresher it is, the better it will accomplish its purpose. If a single apple decays in a barrel packed in this way, contamination of others is prevented by the chaff and lime, and the gases generated by putrefactive fermentation are absorbed, and the confined air kept sweet.]

Smut in Wheat.—Will you be so kind as to inform me through the Cultivator, the cause of wheat's smutting, and also the preventive, if any effectual preventative is known? The wheat in this vicinity is all smutted, and much of it very badly—so much so that it will not amount to more than half a crop. Last year there was a little smut in some fields This spring, fearing the disease would become more prevalent, I procured some good stone lime, (having been told that it would prevent smut,) slacked it, then wet my wheat thoroughly and sifted on the dry lime, and then stirred it until it was all evenly coated with lime. This I did immediately before sowing. It did not have the desired effect altogether, although I do not think my wheat is as badly smutted as some of my neighbors, who did not lime theirs. Will the next year's crop be more likely to smut, by sowing seed that was grown this year with smut? Any information upon this subject will be gratefully received by those in this community who read the Cultivator. M. H. Howard. *Morgan, Winneshick Co., Iowa, July* 28, 1857. [We have already stated, in answer to an inquiry, that smut is a parasitic fungus, spreading from the present seed to the growing plant. Washing the seed simply in clear water, will remove the infection, provided it is done repeatedly; but it is better, after washing two or three times for clearing off the heaviest portion, to wash it in lime water, brine, or blue vitriol The usual lime-dusting may be added. We have never tried blue vitriol, but have been informed that it is very efficacious. There is no doubt that our correspondent, had he first washed his wheat well in a stream of water, or in brine, before applying the lime, would have found but comparatively little smut in his wheat this year.]

Dioscorea Batatas.—I received from the Patent Office, in the spring of 1856, some tubers of the "Chinese Yam (Dioscorea Batatas.)" They were then planted, and with very little protection were uninjured by the frosts of last winter, being left in the ground where they grew. The vines have shot up this summer in great luxuriance. How long must the tubers remain in the earth before they are fit to use? How cooked, &c.? X. *Cleves, O.* [The tubers are said to be best when taken from the ground in the spring, a year after planting. They may be baked, boiled, or steamed, the same same as the potato, but do not require quite so long a time to cook.]

Kohl Rabi.—Can you inform me where the seed of the Kohl Rabi can be obtained. J. J. H *Xenia, O.* [Of J. M. Thorburn & Co., seedsmen, New-York.]

Horse Power and Feed Mill.—Which is the best horse power machine for barn use,—threshing, grinding, &c.? Also which is the best barn mill for grinding cattle feed? Information on these points from those who have tried these machines, will be useful to me, and may be also to many of your readers. T. N.

Killing Brakes.—Can (and if so will) you or any of the readers of The Cultivator tell me how to kill brakes in a pasture which cannot be plowed? An answer is earnestly solicited in the Sept., no. of The Cultivator. W. E. Huntley.

Bone-Dust for Cattle—Bone Disease.

Messrs. Editors—In your article on salt, ground bones, &c., for cattle, you recommend feeding them together—a practice which I followed for several years, until observation convinced me that it was wrong. I found that my cows ate several times as much bone when in full flow of milk as when dry, and at such times would eat salt to their injury in order to get a supply of bone. I have since had a partition in my box, and fed them separately. I believe bone as necessary as salt for milch cows, and when kept on old pastures is essential to their health, and improves the quality and quantity of their milk. Young cattle eat much less bone than old ones. My cattle eat little, if any, until they were seven or eight years old, but have since eaten considerable.

I believe that young cattle never have the "bone disease;" a complaint which I presume is much more common in its earlier stages than is generally supposed. I well remember that when I was "cow-boy," the older cows were in the summer season sometimes troubled with a lameness or rather stiffness of the hind quarters, a squeaking and rattling of the joints, and an inability to raise their hind feet over the bars. These symptoms always disappeared as the cows dried up.

I had then never heard of the bone disease, but have since (some fifteen or twenty years ago,) seen a fatal case of it, and the first symptoms were precisely the same as those above described. The cow was old, and had been milked two years in succession without drying. She lived many weeks after she was first taken, gradually growing worse until she lost the use of her hind legs, and would sit on her haunches eating the grass in a circle around her—her owner still milking her, as he said for her benefit. A post mortem examination showed the bones very dry, particularly at the joints of the hind quarters. If the cow had been dried, or fed bone-dust without drying, she would probably have recovered.

Anatomists tell us that the bones as well as other parts of an animal, are constantly being renewed—so that that which is called bone disease, is simply starvation of the bones. A neighbor informs me that his cow would eat but very little bone-dust when kept on hay from land that had been manured with bone. My cows consume from one-half bushel to a bushel each of bone in a year. Common ground bone should not be fed. The article used is the clean, dry sawdust and turning from the button-makers. H. V. W. *Waterbury, Ct.*

How To Milk Clean.

Messrs. Editors—To "A Michigan Milkman," who asks for a "hint, suggestion, or item of experience, from any of your readers," in regard to defective miking, I would give my method of milking. Each milker is required to milk the same cows as far as practicable. Each time, and after the cows are all milked, we begin on one side of the yard, taking them in rotation as they stand, and *strip* each one thoroughly. But a little, it is true, is obtained from each cow, but in the aggregate it amounts to something worth while, particularly when we consider that it is the very best of the milk, one quart of which is worth two of the first milking; and then you are sure that the cows are *all* milked and *well* milked, especially if the owner be "around," overlooking and aiding in the operation.

I have practiced the above plan for several years past, and think it repays me well for the small amount of extra time and trouble expended. D. C. M. *Chester, N. Y.*

Notes for the Month.

Wheat Turning to Chess.—Some months ago, to settle a controversy on this subject, Benjamin Hodge of Buffalo, offered a premium of *one hundred dollars* to any one who would demonstrate that wheat would turn to chess—to be awarded under the supervision of the New-York State Agricultural Society, and under such rules as a Committee appointed by the Society should prescribe. This premium was lately claimed by Samuel Davidson, of Greece, Monroe Co., N. Y., who had in his possession, as he believed, the evidence of transmutation. A Committee, appointed by the Society, consisting of Prof. Dewey and L. B. Langworthy, of Rochester, and J. J. Thomas, of Union Springs, with Col. Johnson, Sec. of the Society, met at Rochester recently to examine the evidence.

The experiment to prove transmutation was the following:—A quantity of earth was passed through a fine seive, to separate all chess seeds. It was placed in a pan, and several heads of wheat planted in it. When the wheat came up, it was subjected to all the hard treatment that usually produces winter-killing, viz., flooding with water, and alternately freezing and thawing for several times. Late in the spring, the whole contents of the pan were removed and set out in open ground. When the plants of wheat threw out their heads, there appeared chess heads also. This mass of wheat and chess plants was brought in and placed before the Committee. Stalks of chess were shown, the roots of which were found to proceed directly from the planted heads of wheat, which yet remained entire, and in some instances they were found to issue from the half decayed grains of wheat themselves. This was looked upon as conclusive.

The roots were taken by the Committee and first soaked in water, and afterwards gently washed, by moving them backwards and forwards slowly through it. They were then carefully examined by microscopes. The roots of the chess were now perceived to issue, not from near the end of the grain of wheat, as is usual in sprouting, but from the *side*, and in fact from almost any part. Further examination showed that they merely passed *through* crevices in the decayed wheat grains, and they were separated from the grains without tearing, being merely in contact, without any adhesion or connection. Some of the more minute chess fibres were observed by an achromatic microscope, to extend over the inner surface of the bran, where they had gone in search of the nourishment, (which is known to abound just within the bran,) in the same way that grape roots have been observed to spread over the surface of a rich decaying bone. But they easily separated, and had no connection with the grain. It was satisfactorily proved that the chess plant could not have come from these grains, by the fact that the same single stalk of chess was thus connected with five or six different grains,—which could no more have originated it, than five or six cows could have one calf. This examination, therefore, did not prove anything in favor of transmutation; and as there were many possible ways in which the chess might have become scattered on the soil, the whole experiment was admitted by all parties to be inconclusive.

The claimant is, however, perfectly "satisfied" that the wheat turned to the chess; and he is also so well satisfied with the candor and accuracy of the Committee, that he is confident he will yet convince them of the fact of transmutation, as experiments, conducted by them with great care, are to be performed under his direction, another year.

The English Ag. Society's Meeting for 1857.—The nineteenth meeting, held at Salisbury, during the week ending 25th July, appears to have been generally very successful, although we notice that some quite severe strictures have appeared upon the details of its management. The attendance, it is stated, will "put the exchequer of the Society in a better position than it has been for years." The entries of stock were 1185, about one-fourth—and those of implements about one-sixth, larger than on any previous occasion, and the excellence of the show, as a whole, is the subject of favorable comment—particularly as regards live stock. "The Society never at any previous meeting presented a more gratifying sight, than in the display of cattle, sheep, and pigs." We have not room to notice the exhibition, or the exhibitors at length. It appears that Mr. Fawkes of Farnley Hall, York, occupied a very prominent position among Short-horn breeders—for the fourth time taking the first prize for yearling bulls, and having also been the breeder of the first prize bull in the class including all between 2 and 4 years. Colonel Towneley was again successful in the class for cows, carrying off both prizes, as he did last year. The show of Herefords was good, and that of Devons larger and better than in 1856. "In sheep, the show of Leicesters and Cotswolds was superior, the Cotswold breed having never been better represented. The Southdowns were also excellent, Mr. Jonas Webb distancing all competitors." Blood and well-bred horses are said to have been fairly represented—but other classes not well filled. Pigs were very fine.

In Implements the Society offer an example worthy of imitation here, by limiting the prizes each year to a particular department, and only making awards on fair and careful trials. At Chelmsford, in 1856, plows, harrows, and rollers were the especial articles of competition. This year, £155 were set aside as premiums for drills and horse-hoes, hay machines and rakes, reaping and mowing machines, and carts and wagons. £500 was also to be awarded to the best steam cultivator. The first prize for Reapers was taken by McCormick's machine, made by Burgess & Key—for Mowers by the "American Eagle" made by Ruggles, Nourse & Mason, and the same patent which took the $1000 prize last year in Massachusetts, but which since appears in this country to have failed to maintain the high reputation then acquired.

Four Steam Cultivators were tried but no prizes awarded. There was much complaint as to the character of the field selected for the trial, for which a high price was paid, but which proved in soil flinty and baked, as well as so steep as to be entirely unsuitable.

Irrigation.—We see it stated that the Hon. Hugh White has commenced the erection of a wind-mill on the north bank of the Mohawk, a few yards above the Albany, Vermont and Canada Railroad Bridge, to be used in pumping water into a reservoir on a hill a short distance west of his house, for the purpose of irrigating his farm.

☞ In another part of this paper will be found a rather extended summary of the notes of our visit at John Johnston's—so extended, indeed, that we were forced to omit what we had intended to say of the places of Messrs. R. L. Swan and H. T. E. Foster. We caught but a glimpse, it is true, of their agricultural operations; but both gentlemen have carried on their respective farms with so much system, intelligence and enterprise, that it would be unfair in the highest degree, to pass by the results of their exertions without notice. The neatness and order, not less than the magnificent crops which are to be seen at each of their establishments, render them both models for universal imitation. We hope at some time to be able to speak of them from longer observation.

— We also omitted all that we had intended to say of the beauty of the lake scenery, and of Geneva itself; but to those who have visited the place it would be unnecessary, and to those who have not, we should be successful in giving but a faint idea of the reality.

The Dynamometer Trial at Syracuse.—Previous trials of machines by this useful test, have all of them, so far as we are aware, been wanting in certain respects essential to a proper degree of exactness. For example in determining the draft of a mowing machine it is well enough to say that it was equal to so many pounds per minute during each minute of the time consumed in going a certain distance. But when a *comparison* is instituted between different machines, a more intricate calculation becomes necessary. *First*, if a machine does its work in four minutes at a draft of 350 pounds, while another does the same work in three minutes at a draft of 400 pounds, the ratio between the two sums, 350 and 400, by no means expresses a correct comparison between the draft of the two; for, if *the same length of time* had been taken by the latter as the former, its draft would have been reduced perhaps considerably below that of the other. *Secondly*, the *width of swath* must introduce another element into the proportion; for, if of two machines, showing the same draft and the same time, one cuts six inches or a foot wider swath, of course it would be unfair to rank the power expended upon them exactly alike.

Both these elements are now undergoing consideration, and being calculated by the members of the Syracuse board of Judges, having the dynamometrical trial in charge. What we wish to know is the exact power each machine requires to cut, say one foot in width, provided all cut swaths of equal length in equal time. On this basis we shall be able to determine their comparative draft exactly. Other sub-committees are engaged in making out reports upon the comparative mechanical construction—work done, &c.,—all of which, when completed and combined, must throw much light that is new even to manufacturers of machines, upon the points of practical importance involved in all the differences, large and minute, in their construction.

The Late Trial of Reapers, &c., in Maryland.—To the account of this trial, lately published in the Country Gentleman—the first agricultural journal in which any account of it appeared—it is proper to add that among the mowers most successful were those using the Track-Clearer. This appurtenance to those machines, it is said by the friends of Ketchum's mower, belong exclusively to that machine, and to have been the invention of the party giving his name to that machine. How well this claim is founded it is not for your correspondent to decide. If this invention be protected by a patent, of course those entitled to its advantages will know how to secure them. E. L. R.
Baltimore, Md.

Arrival of Stock.—We learn that the stock of the Illinois Importing Company, an account of which has already appeared in our columns, and about the safety of which there has lately been a good deal of anxiety, arrived at Philadelphia on Monday of last week by the ship Georgia, after a passage of 58 days, during which three fine two-year-old bulls and one cow died, and also one mare, two hogs and two sheep. The stock arrived consists of 28 Short-horn cattle, 2 stallions, 18 hogs and 19 sheep. Considering the length of voyage, they are in fair condition, and after a little rest will be forwarded to their destination in the west.

The Kentucky Harvester.—We are furnished by a friend with the following statement in relation to the characteristics of this machine, as manufactured by Messrs. Miller, Wingate & Co., of Louisville. We understand that it is there meeting with large sales, and acquiring a good reputation in all the particulars named: "1st. Large free gearing, giving great ease of motion, and two large wheels carrying the cutter bar up at any height, from one to eight inches. When used as a mower, the driver can, by a lever at his right, instantly raise and lower the cutter bar, and by a lever at his left, can instantly stop the knife—two very important points especially where the machines are to be used on rough and uneven ground. All the essential parts of the machine are made of wrought iron. It runs very light, and is easy work for two horses. The cutter bar is made of boiler iron, folded over with the round side in front; the guard fingers are enclosed *within* the bar, rendering them very secure and very difficult to get out of line. The guard fingers are of the best wrought iron, polished, and seem to pass through the grass with great ease. The grass is spread with great regularity, and left very smooth and even. We think the speed, manner of spreading the grass, easy draft, durability, reliability, and simplicity of construction, are the prominent points.

Maryland State Ag. Society.—The next Fair of this Society is to be held at Baltimore, Oct. 20–23. Among the prizes are one of $25 for the best animal portrait in oil, and two of $15 each for animal portraits taken by camera obscura, and for engraved or lithographed. Also several prizes for new inventions in aid of agriculture and for essays on various subjects connected therewith.

Springfield (Mass.) Horse Show.—Our readers will remember that there was a great National Exhibition of Horses on the United States Armory Grounds at Springfield, in 1853. This show, the first of the kind in the country, was admirably managed, and passed off with great eclat. The County (Hampden) Ag. Society having purchased and fitted up a beautiful park of 20 acres for its annul exhibitions, affording every convenience for a large exhibition of horses, the association of gentlemen under whose auspices the previous one was held, have announced a "National Exhibition of Imported Blood and American bred Horses," to be opened at Springfield on the 30th of Sept., and to continue for three days. The prizes offered, amount to nearly $2,500, and embrace all kinds of horses, arranged under nineteen classes.

The show grounds of the Hampden Co. Ag. Society, on which this exhibition is to be held, are to be inaugurated Sept. 29—the Inaugural Address by Rev. Henry Ward Beecher.

A Sight Worth Seeing.—In the report of Hon. M. L. Dunlap, on the recent reaper trial near Urbana, Ill., a fact is stated incidentally, says the Chicago Press, which is worthy of at least a passing thought. On the farm of Messrs. Carle & Thomas, Mr. Dunlap found a wheat field consisting of *one thousand acres, and in this field twelve reaping machines at work.* This was a sight worth seeing, truly, and one that has been made possible only within a few years. By the employment of twelve reapers, this immense field can be put in shock in from four to five days. Under the old system of cutting by hand it would require an army of one hundred "cradlers" the same length of time. Or it would take ten "cradlers" from forty to fifty days to complete the job. The reader will see at once that it is only by the use of machinery that farming can be conducted upon so extendsive a scale.

American Institute.—This institution, whose next exhibition is to open at the Crystal Palace, New-York, on the 15th Sept., offers prizes of $20 and $10 for the best and second best barrels of Winter and Spring Wheat, and prizes of $15 and $8 for best and second best barrels of Rye, Buckwheat, Barley, Oats, Yellow and White Corn, and for the best and second best bushel of Chinese Sugar Cane Seed, Clover Seed, Timothy Seed, and Orchard and Red-top Grass Seed. For any further information, address Wm. B. Leonard, Cor. Sec'y, New-York.

Arabian Horses in Kentucky.—Mr. N. K. Richards of Georgetown, Ky., who some years since procured from Arabia two stallions and a mare of the best blood, has recently received three more stallions and two mares, selected by himself after a laborious search of many months among the different tribes of Arabia, and which are believed to be fully equal to any horses ever sent out of that country. Mr. R.'s object is not to breed pure Arabians, but to cross this stock with the thorough-breds of Kentucky.

The Kentucky Harvester.—At a trial of Reapers and Mowers recently held near St. Louis, the first prize of $150, for the best Reaper, and the first prize of $300, for the best Mower and Reaper combined, were both awarded to Miller, Wingate & Co. of Louisville, Ky., for their "Kentucky Harvester."

☞ Fowler & Wells, New-York, have issued a small pamphlet entitled "How to get a Patent," containing all the instructions necessary for inventors. We presume it can be procured by enclosing a post-office stamp to their address.

Our Circulation.—

> "The sale of the *Country Gentleman* nearly equals the entire sale of the whole agricultural press of the United Kingdom."

The above sentence occurs in the course of a review in the *North British Agriculturist*, July 15 of Robert Russel's American Tour. It is probably no more than is true in relation to our weekly and monthly circulation combined—the *Cultivator*, as our readers are aware, being made up monthly of extracts from the Co. Gent. Mr. R put the whole down as weekly, and, excepting this misapprehension, his statement was correct at the time of his visit, since when, however, our circulation has been on the increase.

The periodical from which the above is taken, is, by the way, one of the best of our foreign exchanges. It is published weekly at Edinburgh, Scotland, at *six dollars* a year. The regular number of pages is 16, although a supplement is often added, bringing it up to 20, and occasionally to 24—the page being an inch and a half broader and four inches longer than ours. About five of them, however, are taken up with Advertisements, and as many more with News.

Jonas Webb's South Down Ram-Letting.—The *thirty-first* annual recurrence of this occasion took place at Babraham, July 16, and showed a continued increase in the public appreciation of the beautiful breed of sheep, with the improvement of which Mr. W.'s name has been so long and intimately connected. The attendance was good, and the usual hospitalities enjoyed, beginning with a lunch and concluding in genuine British style with a dinner—an institution Americans have yet to adopt. There were in the list of rams exposed on the ground, one five-year-old, ten four-year-olds, sixteen three-year-olds, fifty-three two-year-olds, and sixty yearlings, or 140 in all. Of these, sixty-five were "let" by auction to the highest bidders—all being started at certain prices, when if no advance was made the party calling any sheep in was adjudged the hirer; the highest bidder, of course, taking any ram in regard to which competition ensued. The gross amount at which the 65 were put up was £1524, 12*s*—the gross amount they realized £1812, 6*s*., giving an average of very nearly $140 per head, showing an increase of more than $10 a head on any former year, with the exception of 1856, which was considered an unusually good one. The price named as the average would be considered here pretty good, for the use one year of a single animal. But we find in looking over those above the average, some still more astonishing figures: two were let for 50 guineas each ($250); one for 52 gs.; two for 70 gs. each; one for 71 gs.; one for 100 guineas, and one (No. 115,) for 197 guineas, or $985—the last being the highest price ever realized by Mr. Webb for a year's hire of one ram, and (we may add as usual in such cases) being bid for an American gentleman—Mr. Lindsay of New-York, by whom it was reported that the animal would probably be purchased in order to make him a permanent accession to our South Down blood. He was put up at 130 guineas, being nearly double the price set on any other, and showing no less its breeder's estimate of its comparative value, than the enterprise of the bidder in securing the best, "regardless of expense."

The Co Gent. at the West.—I have been a subscriber of the Country Gentleman only for a short time, yet I must be permitted to express to you my entire satisfaction with it. It suits my idea of an agricultural paper better than any thing I have yet seen. At first I doubted the propriety of taking an agricultural paper published so far from home; yet I find it none the less valuable on that account. Indeed, in some respects, its value is increased, as it is published in a region of country where agriculture is in a more advanced state than with us. Editors of agricultural papers in the course of a few years, become more or less familiar with all the subjects treated of in such papers, while the readers are more or less changing from year to year, many of them young men like myself, without a great deal of experience. We have to ask the same questions which have been asked before, and which have been answered. R. H. B. *McDonough Co., Ill.*

Potatoes Mixing in the Hill.—We have raised for three years past, the Western Red and Mercer potatoes side by side. The seed came from different places—was pure when it came I believe, and they have been gradually mixing, the mercers with the reds. The hybrids are in every proportion, frequently one half of a potato white or bluish, the other red, forming when washed quite a contrast. Inquiry of farmers compels me to admit it is not an isolated case, and although aware of the slight foundations often belonging to popular beliefs, yet this I have seen. W. H. S. *Plainfield, N. J.*

Seed Drill.—The certificate just sent us from Jonesville, Saratoga Co., in favor of a patent Drill, we shall be pleased to publish as an an advertisement. From all we hear of the Drill alluded to, we doubt not it is a good one, and we presume the manufacturers would find it greatly to their advantage to advertise it in our columns.

Fine Strawberries.—If you were not so far from us, would liked to have sent you a specimen of strawberries grown here this summer. I imported the plants from England, called "Magnum Bonum." The berries are beautiful color, true pine-apple flavor, and measured four and a half inches long, and five and a half in circumference. Henry Cook. *Alexandria, Va.*

Cabbages.—In the New-England Farmer of July 11th, it is stated that more than sixty tons of cabbages have been grown on an acre of land underdrained the year before, where thirty tons had previously been viewed as a large crop.

The American Farmer's Encyclopedia,

EMBRACING all the recent discoveries in Agricultural Chemistry, and the use of Mineral, Vegetable and Animal Manures. With Descriptions and Figures of American Insects injurious to Vegetation. Being a Complete Guide for the cultivation of every variety of Garden and Field Crops. Illustrated by numerous engravings of Grasses, Grains, Animals. Implements, Insects, &c By GOUVERNEUR EMERSON, of Pennsylvania, upon the basis of Johnson's Farmer's Encyclopedia.

Price Four Dollars. Sent free of Postage upon receipt of price. "No Farmer should be without it." Published by C. M. SAXTON & CO.,
Agricultural Book Publishers,
Aug. 27—w&m1t 140 Fulton-st., New-York.

TO NURSERYMEN.

STOCKS AND SEEDLINGS.

WE BEG to announce to the Trade that we are able to supply the following in large quantities, viz :

MAZZARD CHERRY Seedlings,	1 year.
APPLE Seedlings,	2 "
QUINCE from Cuttings,	1 "
HORSE CHESTNUTS	1, 2 & 3 "
ELM, AMERICAN,	2 & 3 "
BLACK WALNUT and BUTTERNUT,	3 "
MAPLE, Silver and Scarlet,	2 & 3 "
MAPLE, Sugar,	1 "
MAGNOLIA, Acuminata,	2 & 3 "
MOUNTAIN ASH, European,	1 "
LABURNUMS,	2 "
OAKS, Red and White,	3 "

And many other articles, for which see other advertisement, and Catalogues, Descriptive and Wholesale, which are sent gratis to all who apply and enclose stamps to prepay postage. ELLWANGER & BARRY,
Aug. 20,w&m1t Mount Hope Nurseries, Nochester, N. Y.

Bulbous Roots, Roses, Strawberries and Trees.

WM. R. PRINCE & CO., Flushing, N. Y., offer their most extensive collection of Bulbous Flower Roots in their Priced Catalogues for 1857. The new Descriptive Catalogue of the finest Strawberries--105 varieties—and New Catalogue of Roses, Tree and Herbaceous Pæonies, Carnations, Phlox, Iris, Chrysanthemums, Dahlias, &c., and a Descriptive Catalogue of Fruit and Ornamental Trees, are ready for applicants who enclose stamps. Chinese Potato Tubers will now be contracted for, deliverable 1st of October, with a Treatise on Culture. 10,000 Linnæus, Victoria and Early Tobolsk Rhubarb. 50,000 German Asparagus. 250,000 American Thorn, Arbor Vitæ, Osage Orange, Honey Locust, and Privet, for hedges. 10,000 Cherry and Provence Currants. 50,000 Lawton and Imperial Blackberries. 30,000 Orange, Antwerp, and other Raspberries. 20,000 Hardy Grapes, English and Houghton Gooseberries, and Cranberries. All in quantity at lowest rates. N. B. The collection in every Department is unequalled ; and many of the varieties of Fruit Trees and of Strawberries, &c., cultivated by others, are shown to be worthless. Aug. 27—w2tm1t*

NOTICE.

A great and rare chance for Pomologists and Nurserymen.

THE subscribers will sell at their premises, (on account of the declining health of the Producer,) from 1,500 to 2,000 New Varieties of Seedling Grape Vines, five and six years old, ready to fruit the coming season, in lots to suit purchasers. All perfectly hardy—selected from all the hardy varieties of Northern and Western Grapes. Such an opportunity has never before been offered the fruit growing community, of making thousands from a small investment of a few dollars. Please call and examine the stock on the premises of the subscribers, between this and the middle of September next.
J. LEWIS, P. STEWART.
New Lebanon, Columbia Co., N. Y. Aug. 20—w&m1t.

SUFFOLKS.

ONE or two pair of fine Suffolk pigs for sale by the Subscriber, well haired, and from different litters ; Price, $40 per pair. J. R. PAGE,
Aug. 20—w4tm1t Sennett, N. Y.

HORSE POWERS,
THRESHING MACHINES,
EXCELSIOR FAN MILLS,

AT the North River Agricultural Warehouse.
GRIFFING BROTHER & CO.,
Aug. 20—w8tm2t 60 Courtlandt-St., New-York.

New and Rare Ornamental Trees.

MESSRS. ELLWANGER & BARRY solicit the attention of gentlemen who are interested in new and rare Ornamental Trees, to the following, viz :

KILMARNOCK WEEPING WILLOW, with pendulous brown branches and large glossy leaves—an elegant tree.

AMERICAN WEEPING WILLOW.—A beautiful small tree with a profusion of light, graceful, drooping branches and small silvery green foliage.

ROSEMARY LEAVED WILLOW.—A very striking tree with feathery branches and bright silvery foliage.

WEEPING POPLAR.—A remarkably graceful tree—the tremulous foliage and drooping habit combined, are quite expressive.

CUT-LEAVED WEEPING BIRCH.—No other tree possesses in every particular, so much of lightness and elegance as this.

PURPLE-LEAVED SYCAMORE—A very striking tree, having large rich purple foliage.

AUCUBA-LEAVED ASH—Quite a novelty, having the leaves all profusely sprinkled with golden blotches.

GOLD-STRIPED WEEPING ASH—A variety of the common Weeping Ash, with golden stripes and blotches on both foliage and branches.

ELMS, PURPLE-LEAVED, NETTLE-LEAVED, PYRAMIDAL, HUNTINGDON, and several other remarkable and beautiful species and varieties.

These are but a few of the many rare and fine trees which E. & B. now offer. In new and rare Shrubs, Roses, Pæonies, Phloxes, and other popular classes of plants, their collection is equally rich.

For particulars they must refer to the following Catalogues, which will be sent prepaid to all who enclose one stamp for each :—No. 1—Fruits. No. 2—Ornamental Trees. No. 3—Green House and Bedding Plants, Dahlias, &c. No. 4—Wholesale.

MT. HOPE NURSERIES, Rochester, N. Y., Aug. 1857.
Aug. 20—w1m1t.

STRAWBERRIES.

HOVEY'S SEEDLING, Boston Pine, and Large Early Scarlet—vigorous and true to name—$6 per 1,000—$1 per 100.

Also, Brinckle's Orange Raspberry, and Linnæus Rhubarb—a new English variety—very superior.
FREEMAN & KENDALL,
Ravenswood Fruit Garden,
Sept. 1—m1t Ravenswood, L. I., near New-York.

SHORT-HORNS.

I HAVE in my stables three young BULLS, two of which I offer for sale, viz :

"HIAWATHA." 1663—red—calved November, 1855 ; bred by Sam'l Thorne, Esq. A first-class animal in every respect, with extraordinary good handling and quality—Price $1.000.

"KNIGHT OF GWYNNE."—mostly red—calved May, 1857 ; bred by Sam'l Thorne, Esq. ; got by Grand Duke 2d, (12961) out of Dinah Gwynne, by Balco (9918.) For farther pedigrees, see 2d vol. A. H. B., p. 352—Price $500.

Also several Cows and Heifers in calf to Hiawatha, at from $200 to $500.

"CRICKET"—roan—calved June, 1857 ; got by Double Duke, 1451½, out of Crumie—see 3d vol. A. H. B., p. 357 —Price $200.

My farm is but five minutes walk from Sennett Station of New-York Central R. R., (old road,) and five miles east of Auburn. J. R. PAGE,
Aug. 27—w4tm1t Sennett, N. Y.

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag., by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME.--Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS. all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,
A large and complete assortment of all the improved kinds.
MOWING AND REAPING Machines.
R. L. ALLEN,
Feb. 26—wcow&mtf 189 & 191 Water-st., New-York.

Fruit and Ornamental Trees,

FOR AUTUMN OF 1857.

ELLWANGER & BARRY beg to announce that they offer for the ensuing Fall Trade their usual extensive stock of nursery articles, embracing

Standard and Dwarf Fruit Trees of all kinds.

Small Fruits, embracing the finest Currants, Gooseberries, Raspberries. Blackberries, Strawberries, &c., &c.

Nuts, including Walnuts, Filberts, Chestnuts, &c.

Rhubarb, Linnæus, Victoria, &c., all the best.

Giant Asparagus, &c., &c.

Deciduous Ornemental Trees for streets, parks, lawns, cemeteries. &c.

Weeping Trees, a great collection.

Evergreen Trees, including upwards of half a million of Norway Spruce of all sizes. and a large stock of the gigantic Washingtonia, and other California trees.

Flowering Shrubs, Roses, Green-House, Border and Bedding Plants, Hedging, Stocks and Seedlings of all sorts, &c., &c.

Nurserymen, &c., dealt with on the most liberal terms, and amateur's orders attended to with the greatest care. Packing done in the most thorough and skillful manner, and with the best materials.

For full particulars we refer to special advertisements and to the following Catalogues, sent gratis to all who apply and inclose a stamp for each :

No. 1—Descriptive Catalogue of Fruits.

No 2.—Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.

No. 3—Catalogue of Dahlias, Green-House and Bedding Plants.

No. 4—Wholesale or Trade List.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.
Aug. 13—w&m1t.

Hyacinths, Tulips, Double Dahlias, &c.

THE subscribers offer this season a more extensive assortment than usual of *Dutch Bulbous Roots*, imported from the best flower nurseries of Europe, in the finest condition, and all first class bulbs—embracing every desirable variety of *Double and Single Hyacinths*, adapted for house or out-door flowering.

Early and Late Double and Single Tulips of every shade and hue.
Polyanthus Narcissus.
Roman Narcissus for *early* winter blooming.
Single Narcissus.
Double and Single Jonquills.
Crocus of all sorts, including some very fine new named seedling varieties.
Crown Imperials.
Frittillarias.
Gladiolus.
Iris.
Ixias.
Lilies.
Arums.
Colchicums, with numerous other sorts of approved tested value.

Catalogues of the above, with descriptions and directions for planting and managing, will be mailed to applicants enclosing a stamp.

Hyacinth Glasses, Fancy Crocus Pots, &c.

J. M. THORBURN & CO., Seedsmen, &c.,
Aug. 13—w4m1t. 15 John St., New-York.

PREMIUM STRAWBERRIES.

THE New Catalogue describes 102 varieties, including Prince's Scarlet and Magnate—monstrous, and will produce double the crop of Peabody's—Le Baron, and Ladies Pine, superior in flavor to all others ; Marylandica, Harlem Orange, Charles' Favorite, Sir Charles Napier, Scarlet Nonpareil, Crystal Palace, Wilson's Albany, $2.00 per 100; Peabody's $2½ per dozen; Hooker $1.00 per dozen, $4.00 per 100. We will contract for delivery of New Rochelle or Lawton Imperial Blackberries, Cherry and other Currants, English and Houghton Gooseberries, Hardy Brentford, Antwerp and Orange Raspberries, and Chinese Potato tubers, by 100 or 1000, at moderate rates.

WM. R. PRINCE & CO.
Aug. 6—w1tm1t.* Flushing.

Plum and Cherry Seedlings.

100,000 Prime Mazzard Cherry Seedlings for sale at $5 per M. No charge for package when 5,000 are taken.

15,000 strong two years old Plum Seedlings, at $10 per M.

E. G. STUDLEY,
Aug. 13—w2tm2t. Claverack, Col. Co., N. Y.

To Seedsmen, Planters, &c.

THORBURN'S Preliminary Wholesale Priced List of **Vegetable and Agricultural Seeds, Dutch Bulbous Roots, Double Dahlias, &c.,** for the Fall of 1857, is just published, and will be mailed to dealers and others requiring seeds in quantities, enclosing a stamp for return postage.

This year's seeds, so far as harvested, are of prime quality, generally abundant, and prices correspondingly moderate. J. M. THORBURN & CO., Seedsmen, &c.,
Aug. 13—weow4t—m2t. 15 John St., New-York.

GOOSEBERRY PLANTS.

GENUINE HOUGHTON'S Seedling—the only variety worth cultivating. Railroad facilities for sending in all directions. Furnished by the dozen or thousand. Orders should be sent in now. C. B. MURRAY,
July 30—m1tw2t 20 Mile Stand, Warren Co., Ohio.

SMALL FRUITS,

Strawberries, Raspberries, Currants, &c.

WE solicit the attention of Nurserymen, Dealers and Amateur fruit-growers to our collection of the above Fruits, the most extensive in quantity and variety ever offered in this country.

Strawberries—Upwards of 60 varieties, all fruited and tested on our own grounds—including the Hooker, Brighton Pine, Jenny Lind, Genesee, and all the best American sorts, and Triomphe de Gand, Trollope's Victoria, and all the best foreign varieties.

Raspberries—All the popular varieties, including the Orange, the best and most beautiful of its color. Also the superb or new Autumnal or Everbearing sorts—Merveille de quatre Saisons and Belle de Fontenay.

Currants—Upwards of 20 varieties, including those superb sorts—Cherry, White Grape, Victoria, Prince Albert, &c., &c.

Gooseberries—A large assortment of the best English large sorts, and the American Seedling, which bears immense crops and is always free from mildew.

Blackberries—New Rochelle or Lawton, and High Bush or Dorchester.

We solicit orders for the above and all other Nursery articles, and pledge ourselves to give them our best attention.

The following Catalogues will be sent gratis to all who apply and inclose stamps to prepay postage :

No. 1—A Descriptive Catalogue of Fruits.

No. 2—A Descriptive Catalogue of Ornamental Trees, Shrubs, Roses, &c.

No. 3—A Catalogue of Dahlias, Verbenas, Petunias, and new and select Green-House and Bedding Plants, published every Spring.

No. 4—A Wholesale Catalogue for Nurserymen, Dealers and others who purchase extensively.

☞ See other advertisement.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.
Aug. 13—w&m1t.

Excelsior Cider and Wine Mill.

Krauser's Patent—$45.

THIS is a light Mill, easily handled, and does more work, with less power, and in less time than any other in use. Two men will readily make from eight to ten barrels of cider per day, and that with seven to eight bushels of good apples per barrel. By the application of Horse Power, much more may be done. It is well adapted, in all respects, to the manufacture of Wine, from the Grape, as Cider from the Apple. The pulp, or pomace, is easily subjected to a pressure of about ten tons, by the use of a lever, in the hands of one man. It is very simple in its arrangement, and from its peculiar construction is not liable to get out of order by any ordinary or necessary use, and it cannot be clogged by over-feeding. This Mill took the first prize (a Silver Medal,) over Hickok's, at the Pennsylvania State Fair.

Having very much improved the pressing part of the Mill, and made several other important improvements, I have been obliged to increase the price to $45. A liberal discount to dealers. Address

RICH'D H. PEASE,
Aug. 6—w4tm1t. Albany, N. Y.

Please to Read This.

IF YOU WANT EMPLOYMENT, send at once for Mr. Sears' Circulars to Book Agents. Our publications are considered among the most saleable. Address (post-paid) ROBERT SEARS, Publisher.
March 19—w6tm6t No. 181 William-st., New-York.

Great Sale of
DEVON CATTLE
And South Down Sheep.
On Wednesday, 9th of September, 1857.

I will sell at public auction, without reserve, my herd of Devon Cattle, about forty-five in number, and my flock of South Down Sheep, about one hundred, at my farm on Grand Island, two miles from the rail road and omnibus stations in North Buffalo.

I have bred Devons for many years. The original stock were derived from the best animals, and for the last seven years my breeding bulls have been of imported blood, direct from Devonshire, England, which, with several of my present cows, are recorded in the English Devon Herd Book. All my herd will be recorded in the American Devon Herd Book, soon to be published, and are equal probably, in quality, to any others in this country. The herd consists of about 30 cows and heifers, and 15 or 16 bulls and bull calves.

My South Downs are descended originally from the flocks of Mr. Ellman, the Duke of Richmond and other celebrated English breeders, crossed for the last seven or eight years with rams bred by the great South Down breeder, Mr. Webb, of Babraham, England. There will be 75 or 80 ewes, the remainder rams.

As I intend making a CLEAN SALE, this will probably be a better opportunity for purchasers to select animals to their liking than any other which will occur for some time.

Descriptive Catalogues will be ready by the first of August, which will be sent by mail to all those applying to me by letter.

TERMS OF SALE.—For all sums less than $100, cash; on sums of $100 and over, good notes at three months, on interest, payable at the bank, will be received.

The stock will be delivered on steamboat or railroad, at Buffalo, as may be desired, the day after the sale.

Those wishing to view the stock previous to the sale, will be conveyed to the farm by calling at my residence; and those attending on the sale day will cross the Niagara river between the farm and the main shore by steam ferry from the omnibus station at Lower Black Rock or North Buffalo, to which either the omnibuses or rail cars will bring them from their stations in Buffalo. Sale to commence at 11 o'clock, A. M., of the first day.

LEWIS F. ALLEN.

Black Rock, N. Y., July 16, 1857—weow5t—m2t.

ESSEX PIGS.

THE Subscriber is now ready to receive orders for pigs of this breed from his Spring litters. Three of these were sired by his imported boar "Brum," selected as the best pig in the pen of five to which the first premium was awarded at the Birmingham (Eng.) Show in Dec., 1856; and two by Mr. Thorne's imported boar "Chelmsford," winner of the first prize at the last Show of the Royal Ag. Society.

Selections will be made in strict accordance with the order of application. Where pairs are sent they will be taken from litters sired by different boars.

Price at six weeks old, $25 per pair; single pigs, $15; well boxed and shipped at Rhinebeck. TERMS CASH.

C. S. WAINWRIGHT,
The Meadows,
June 25—w4t—maug&sept. Near Rhinebeck, N. Y.

PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

R. L. ALLEN, 189 & 191 Water-st., New-York.

☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.

Feb. 26—weow&mtf

PERUVIAN GUANO,
Government Weight and Brand.
COLUMBIAN GUANO,
Government Weight and Brand.
SUPERPHOSPHATE OF LIME.
MANIPULATED GUANO NUMBER 1.
BONE DUST.

For sale by A. LONGETT, 34 Cliff Street,
Aug. 1—m3t. Corner of Fulton, New-York

Farm for Sale.

THE subscriber offers for sale his farm in Fairfax Co., Va., 6 miles north of the Court House, and about 20 miles from Alexandria and Washington respectively, and 2 miles from the Mannasses Gap and Alexandria R. R. Station, and 3 miles from Alexandria, London and Hampshire Railroad Station, both roads being now in course of construction.

The farm contains 321 acres of land, about half of which is cleared and under a good state of cultivation; the balance is in timber. There is supposed to be 200,000 feet of good saw timber on the land. There is two steam saw-mills, lately put up, in the neighborhood; one near one side of the land—the other is about half a mile from the other side. The land can be divided into three farms; there are three dwelling-houses on it, all nearly new. There is a large orchard of apples of choice improved fruit, now bearing; also peaches, plums and cherries. The land is well watered by never-failing springs that run together, and afford plenty of water to drive a wheel of capacity enough to saw wood or thresh. A large portion of the land is alluvial bottom, a portion of which is cleared and ditched.

There is also a stone quarry on the land. To one seeking Virginia land, this presents many inducements, and will be sold low, and on reasonable terms of payment.

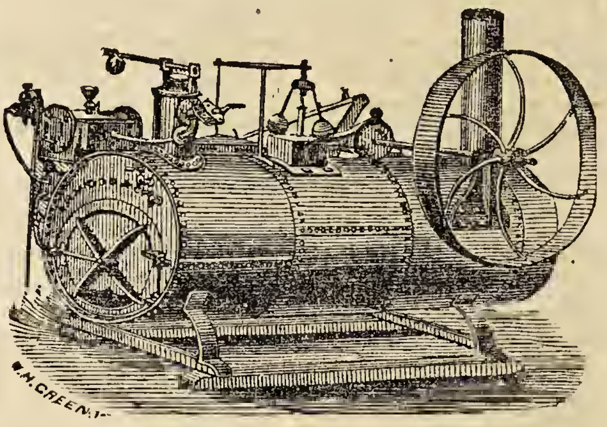
Any one wishing further particulars respecting the land, may address me at Chantilly, Fairfax Co., Va.

July 16—w1tm2t. BENJ. R. BARLOW.

First Class Family Journals.

LIFE ILLUSTRATED: A First Class Pictorial Paper, weekly. $2 a year; $1 for half a year....WATER-CURE JOURNAL: Devoted to the Laws of Life and Health. $1 a year....PHRENOLOGICAL JOURNAL: Devoted to the Improvement of Mankind. $1 a year. The three Journals sent one year for $3. Address

FOWLER & WELLS,
July 9—w4tm2t. No. 308 Broadway, New-York.



Wood's Portable Steam Engine Works,
Eaton, Madison Co., N. Y.

A. N. WOOD & CO.

Practical Machinists, and Builders of their Celebrated
PORTABLE STEAM ENGINES
For Farm and Mechanical Purposes.

WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

PRICE LIST FOR 1857.

Horse power	estimate weight	space occupied	cash price	fly-wheel diameter	face of wheel
2½	2000 lb.	4 by 5 ft.	$240	39 in.	5½ in.
3	2200 "	5 by 5 "	290	39 "	5½ "
4	2500 "	7 by 5 "	355	40 "	6 "
6	3600 "	7 by 5 "	550	44 "	7 "
8	4800 "	9 by 6½ "	700	48 "	8 "
10	6000 "	10 by 6½ "	875	60 "	8 "
12	7500 "	14 by 6½ "	1050	72 "	12 "

The above price includes boxing and delivered on board cars. A. N. WOOD & CO.

April 23—wtf—June 1—mft.

Cider Mill and Press,

Much Improved over Last Year's Make.

1. The frames are put together with joint bolts.
2. The fly wheel is 22 inches in diameter instead of 16.
3. The form of the teeth has been changed, so as to make them grind easier and freer.
4. Entirely new gearings have been constructed.

For sale by JOHN ALEXANDER,
Aug 1—m2t—waug20 4t. 34 Cliff-st., New-York

Choice Farm Lands for Sale.

THE ILLINOIS CENTRAL R. R. COMPANY,

IS NOW PREPARED TO SELL ABOUT

1,500,000 ACRES
OF CHOICE FARMING LANDS,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE Lands were granted by the Government to aid in the construction of this Road, and are among the richest and most fertile in the world. They extend from north-east and north-west, through the middle of the State, to the extreme south, and include every variety of climate and productions found between those parallels of latitude. The northern portion is chiefly prairie, interspersed with fine groves, and in the middle and southern sections timber predominates, alternating with beautiful prairies and openings.

The climate is more healthy, mild and equable, than any other part of the country—the air is pure and bracing, while living streams and springs of excellent water abound.

Bituminous Coal is extensively mined, and supplies a cheap and desirable fuel, being furnished at many points at $2 to $4 per ton—and wood can be had at the same rate per cord.

Building Stone of excellent quality also abounds, which can be procured for little more than the expense of transportation.

The great fertility of these lands, which are a black rich mould from two to five feet deep, and gently rolling,—their contiguity to this Road, by which every facility is furnished for travel and transportation, to the principal markets North, South, East, West, and the economy with which they can be cultivated, render them the most valuable investment that can be found; and present the most favorable opportunity for persons of industrious habits and small means to acquire a comfortable independence in a efw years.

Chicago is now the greatest grain market in the world—and the facility and economy with which the products of these lands can be transported to that market, make them much more profitable at the prices asked, than those more remote at government rates,—as the additional cost of transportation is a perpetual tax on the latter, which must be borne by the producer, in the reduced price he receives for his grain, &c.

The Title is perfect—and when the final payments are made, Deeds are executed by the Trustees appointed by the State, and in whom the title is vested, to the purchasers, which convey to them absolute titles in Fee Simple, free and clear of every incumbrance, lien or mortgage.

The Prices are from $6 to $30—Interest only 3 pr. ct.

Twenty per cent. will be deducted from the Credit Price for Cash.

Those who purchase on long credit, give notes payable in 2, 3, 4, 5 and 6 years after date, and are required to improve one-tenth annually for five years, so as to have one-half the land under cultivation, at the end of that time.

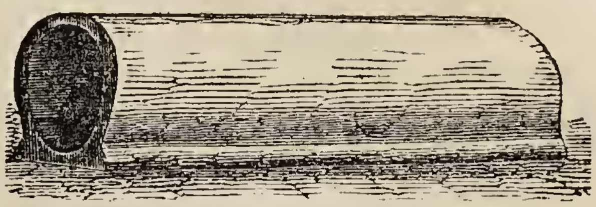
Competent Surveyors will accompany those who wish to examine these Lands, free of charge, and aid them in making selections.

The lands remaining unsold are as rich and valuable as those which have been disposed of.

SECTIONAL MAPS

Will be sent to any one who will enclose fifty cents in Postage Stamps, and Books or Pamphlets, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad Lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc.,—or any other information—will be cheerfully given on application, either personally or by letter, in English, French or German, addressed to

JOHN WILSON,
Land Commissioner of the Ill. Central R. R. Co.
Office in Illinois Central Railroad Depot, Chicago Ill.
April 9—w&m6m



ALBANY TILE WORKS,

Corner of Patroon and Knox Streets, Albany, N. Y

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches rise,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

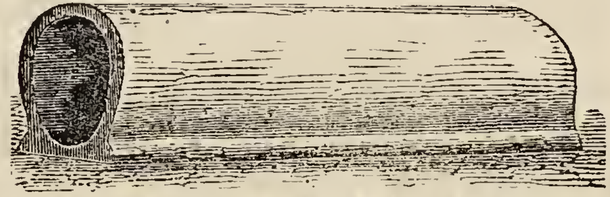
SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches rise,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
(Late BABCOCK & VAN VECHTEN,)
Albany, N. Y.
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y



New-York State Tile Works,

On the Western Plank Road, near the Orphan Asylum, Albany, N. Y.

THE subscriber having purchased the Drain Tile works of Artcher & Co., offers for sale the following sized Tile:

HORSE SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches calibre,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches calibre,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

I warrant every Tile perfectly sound, and harder and better Tile than any before made in Albany. If not, the purchaser need not pay for them. I will also undertake draining to any amount, and at any place, and furnish Tile for the same, and ask no pay until the employer is perfectly satisfied with the result. I am also willing to render my services in laying out drains free of charge, to any one who purchases Tile of me.

A liberal per centage will be allowed on orders for 10,000 or more. Cartage free. Gentlemen, your patronage is respectfully solicited. Orders from all parts thankfully received and promptly attended to.

GEO. ALDERSON, Albany, N. Y.,
(Late Artcher & Co.) Office 63 Quay Street.
EMERY BROTHERS, Agents, Corner State and Green Sts.
April 30—w4t&eow3ms—m6t.

Agricultural Books,

For sale at the office of the Country Gentleman.

Contents of this Number.

THE FARM.

A Day's Notes near Geneva—John Johnston's Farm —Draining—Use of Lime, ... 265
Corn, Wheat and Hay Crops—Chess, ... 266
Cattle and Sheep Feeding—Stables, ... 267
Farm Buildings—Six Suggestions to Farmers, ... 268
Number of Stalks in a Hill of Corn, ... 270
My Mode of Farming. by an Empire State Farmer, ... 271
Mowing Machines at Syracuse, ... 271
Entomology, No. 16—Insects in Corn, Potato Vines, and on Gooseberry Bushes, by Dr. Asa Fitch, ... 273
Notes about the West, No. 3—Prairie Farming, Water, Timber, and Fencing—Profits of Farming. 275
Cooked and Uncooked Food for Swine. 277
Notes about the West, No. 4—Plows, Plow Factories, Corn Planters, &c., ... 280
Illustrated Annual Register for 1858, ... 281
National, State and County Fairs 281
Notes in Steuben, No. 1—Hon. A. B. Dickinson's Farming—Pastures and Meadows, ... 282
Irrigation, Draining. Seeding, Plaster, &c., ... 283
Inquiries and Answers, ... 286
Notes for the Month, ... 289
Wheat Turning to Chess, ... 289

THE GRAZIER.

Heaves in Horses Cured, ... 272
Seed Ticks on Horses and Cattle, by B., ... 272
How to Make a Horse Draw, by H. Williamson, ... 274
Diseases of Swine, by J. W. Lequear, ... 276
Cure for Ringbone, by Aaron Morris, ... 276
Wolf Teeth in Horses. by W. H. Ladd. 279
Cure for Sweney, by J. C. Holland and S. W., ... 285
How to Break a Cow of Sucking Herself, by H. W., ... 285
Bone Dust for Cattle, by H. V. W., ... 288

DAIRY HUSBANDRY.

Produce of Butter from Different Feed, ... 272
My Milk-Yard, by An Empire State Farmer, ... 278
New Butter Worker, by G. B. Price, ... 279
How to Milk Clean, by D. C. M., ... 288

THE POULTRY-YARD.

The Shanghæ Fowls, ... 269
Leghorn Fowls, by T. A. D., ... 284

THE APIARY.

Best Position for a Bee-House, by Apis, ... 284

THE HORTICULTURIST.

Dwarf and Standard Trees, ... 270
Culture of Top Onions, by C. B. B. and others, ..273, 285
Diseased Apple Trees, ... 273
Apple-Tree Borer, ... 274
Wilson's Albany Strawberry, by S. Worden, ... 274
Insects on the Currant, by Dirigo, ... 274
Care of Street Shade Trees. 279
Remedy for Black Wart on Cherry Trees, by M. W., 285

ILLUSTRATIONS.

Stable Stalls, ... 267
Farm Buildings, ... 268
Shanghæ Fowls, ... 269
Shade Trees, ... 279
Prairie Plows, ... 280
Washington, ... 281

The Illustrated Annual

REGISTER OF RURAL AFFAIRS FOR 1858,

Is now ready for delivery—ILLUSTRATED WITH ONE HUNDRED AND THIRTY ENGRAVINGS, and comprising a great variety of valuable Hints and Suggestions for every Country Resident. The following is a brief and imperfect

EPITOME OF ITS CONTENTS:

I. A COMPLETE COUNTRY RESIDENCE. The Dwelling—Plan of First Floor; Chamber Floor; Construction of Roof and Cellar Walls. The Grounds—Laying out and Ornamental Structures; the Flower Garden; the Dwarf Pear and Fruit Garden; the Kitchen Garden; the Orchard; Hedges. Out Buildings—Smoke House and Ashery; Range of Farm Buildings; Piggery; Poultry House.

II. RULES FOR EXTERIOR DESIGNS FOR HOUSES.

III. THE APIARY—Queens, Workers and Drones; Hives—their Construction; Size for different latitudes; Glass Boxes for Honey; Swarm coming out; Winter Management, &c.

IV. COUNTRY HOUSES. Laborer's Cottages—Design by Mr. Downing; Second Design, with mode of constructing Eaves. Swiss Suburban Cottage—Design and Plans. Stone Cottage—Design and Plans. Small Farm House—Design and Plans. Plain House in Cottage Gothic Style—Design and Plans. Cheap Farm House—Design and Plans. Bracketted Farm House—Design and Plans. Italian Farm House—Design and Plans. Battened Country House—Design, Plan and ftudy for an appropriate ornamental Gate. Gothic Mansion—Design and Plan.

V. NOTES ON FRUITS. Culture of Fruits——Familiar Hints; Treatment of Trees; Sprouts about Fruit Trees; Regrafting Old Trees. The Grape—the Rebecca; Keeping Grapes; Grapes around Boston. The Currant—Varieties of the Currant; Effect of Cultivation; the Currant as a "Bush" and "Tree." The Apple—Apples for Cooking; Molasses from Apples; Productive Young Orchard. The Pear—Fire Blight in Pears; Two Hundred Dollar Trees; Ripening Winter Pears. The Plum—Catching Curculios. Pruning and Grafting Shears. Fruit Ladders.

VI. LIST OF THE BEST FRUITS. Sorts adopted by the Am. Pomological Society—Apples—for General Cultivation; for Northern Localities; Varieties which Promise Well. Pears—for General Cultivation; for Quince Stocks; for Particular Localities. Plums—for General Cultivation; which Promise Well; for Particular Localities. Cherries—ditto. Apricots and Nectarines—for General Cultivation. Peaches. Grapes. Gooseberries. Raspberries. Strawberries. Currants. Blackberries.

VII. ANNUAL FLOWERS. Descriptive Lists and Methods of Culture; Mode of Sowing; Hardy and Tender. Choice Annuals.

VIII. GARDEN STRUCTURES. A Cheap Vinery—Design and Cost. Cheap Green House—Common Green House; Kew Conservatory.

IX. THE KITCHEN GARDEN. Hints in Mamagement—Size, Rotation of Crops; Root Crops; the Cabbage Tribe; Beans, Peas, &c.; Other Crops. The Hot Bed. Select List of Vegetables.

X. FARM BUILDINGS. Ornamental Carriage-Houses—to accompany Dwelling in Italian style; to accompany Dwelling in Gothic style. Sheep Barn, Chester Co. Barn, Granary and Wagon-House.

XI. VARIOUS FACTS IN TILLAGE—Depth of Sowing Wheat—Good Rotation—Wheat Crop Improving—Grass Lands—Dividends from Tile—Heavy Potatoes—Plowing Wet Land—Cheap Farm Laborer—Long and Short Manure—Value of Straw in Manure—Manure enriched by Grain—Harrowing Inverted Sod.

XII. IMPROVED DOMESTIC ANIMALS—Jersey and Suffolk Cattle—Cheviot, and Silesian and French Merino Sheep—Portuguese and Chinese Swine. FEEDING—Experiments with Hogs—Food of Cows—Rules for Fattening.

XIII. RURAL ECONOMY—Constructing Stables—Questions and Answers—Corn Shocks—Animals in Winter—Storing Ice—Planting Timber—Shelter—Double-Minded Farmers—To make Hens Lay in Winter—Feeding Bees—Preparation of Hams.

XIV. DOMESTIC ECONOMY—Broken China—Sticking Salve—Frozen Pumps—Flies—Knitting Stocking Heels—Rat Traps—Owls—Stings and Bites—Door Latches—Chimneys—Matches—P. O. Stamps—To Mend a Chain Pump without taking it up, and many other valuable Items.

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THIRD — To Improve the Soil and the Mind. — SERIES

VOL. V. — ALBANY, OCTOBER, 1857. — No. X.

Notes in Steuben—II.

SOME TOLERABLY LARGE FIGURES — POTATOES, PLANTING AND CULTURE—STONE WALL AND HOW TO BUILD IT—CATTLE GRAZING AND FEEDING—TURNIP FIELD—HEALTHY FOOD—REMEDY FOR THE BLACK KNOT—BATH—GEN. O. F. MARSHALL S.

There are some further figures we may mention, in continuing our notes of the farming operations of Major DICKINSON, illustrating the scale on which they are transacted. He employs 20 horses, breeding enough for his own supply and sometimes to afford a surplus for sale,—and 20 yoke of oxen, not working the latter very hard, but fattening them by degrees for market, and keeping up the number by the purchase of poorer ones. He has about *fifteen miles* of stone wall, so constructed as never to tumble down. He is just now grazing comparatively little stock. His usual complement of cattle we believe is four or five hundred head, of which a hundred perhaps may be yearlings. He has sheared the fleeces of as many as 11,300 sheep in a single year, and his flocks aggregate annually from that number all the way down to one or two thousand —the number on hand at the time of our visit, being but 1,300. He has cut a crop of *two thousand tons* of hay; and we should think might reach that amount if he does not exceed it this year. His sales this spring were from eight to nine hundred tons, at $10, to his neighbors, who drew it from the stacks for themselves, and from $15 to $20 for what was baled and sent to market. He has had also a crop of seven thousand bushels of potatoes to dispose of, and this spring he sold 500 to one man to go to Chicago, and 500 to Cincinnati or that vicinity. Two years ago he sold 4,000 bushels to a single house in New-York for $4,000. He cut up for planting this spring fifteen hundred bushels —intending to plant a hundred acres, but he was disappointed in one field of nearly fifty, pasture land just broken up, the spring being too wet to permit necessary cultivation. He uses three mowing machines—Burrall's, Manny's with Wood's improvement, and Ketchum's. On his farms are no less than thirty barns.

Of *Potatoes* four hundred bushels per acre used to be expected as Major D.'s crop in the days before the rot; since then he has thought an annual average of two hundred a good one. He cuts the potatoes for planting, and rolls in tar and plaster, as already described with wheat and other seed. The plaster is not only of manurial benefit, but the tar he thinks in some measure at least preventive of rot, protecting the tuber from moisture that would otherwise cause its decay He plows furrows in which to plant the potatoes from three to three and one-half feet apart. And, by the way, a *straight* furrow is the Major's particular pride in farming—aside from its neater and more workmanlike appearance, it brings the essential advantage, in cultivating by horses, that there is no danger of interfering with the plants—each is just where it ought to be. It is astonishing how few men can plow a straight furrow, which in our friend's vocabulary signifies one on which if a line were snapped, it would touch its centre at every point.

In these furrows the potatoes are dropped, say, a piece with a couple of eyes every twelve inches. The manure from the cattle yards is thrown over them in the furrow, together with salt, the last at the rate of three or four bushels per acre, and when the straw is dry, often made into a brine and poured over it. The covering of earth is then plowed over the whole, and the labor of planting is concluded. Besides the manure in the furrows, we think the fields have had one dressing previously plowed in; but are uncertain whether the practice of Major D. is to apply it in both ways the same year or not. When the potatoes appear, and as often subsequently as very dry weather may render necessary, he cultivates by horses. And when the weather is unusually dry, or, on the other hand, if it is so wet as to make the soil too hard and compact, he runs the subsoil plow between the rows, having three horses, and thus clearing the hills,—which operation loosens up the ground underneath, opening new stores of moisture to the roots, or, as the case may be, merely permitting their extension and promoting the expansion of the tubers. For seed Major D. plants as late as the first of August. We believe the only kind he grows, is that known as the "Bermuda."

Stone wall is an essential in farm-economy, in the provision of which our friend manifests his customary degree of care and thought. His mode of building it is to raise a ridge of earth to the hight of a foot or two, which hight is of course comparatively doubled by the depth of the ditches on either side from which the earth is taken. These last make good drains in all respects—they are a drain for the road on one side, assisting materially in keeping it in order—they are a two-fold drain for the field on the other, for they cut off the moisture from the road if it chances to be on higher land, and they aid in carrying off its own moisture as well as any other open drain would do. Their depth is increased after the wall is built, by plowing the earth up against it, so as to form a sloping bank from their bottoms up to about a foot above its base. And in the third place, they *drain the wall*—it rests on a foundation always dry, and where there is no water *there is no frost.* Animals, moreover, which approach the wall far enough to get their fore feet into the ditch cannot see over it, and it must be a very hard pressed and ill-tamed brute who would neglect the proverb to "look before leaping." Thus we find Major D.'s walls protected from the heavings of the ground below, and from animal assault above. The stone is laid neatly and compactly in horizontal layers as usual—especial care, however, being taken to make each separate piece *bind* well with its neighbors, in which consists the great "knack" in making a substantial structure. The last horizontal layer is made to afford a smooth, straight and even surface, and then the wall is completed by a course of more rough and jagged stones placed edgewise and some degrees from the perpendicular, the object being mainly to keep off the sheep, which will climb and walk upon a smooth top.

In no other one thing can a farmer perhaps obtain more serviceable hints than from Major D.'s construction of stone wall as above described. In not a single instance, we believe, have his walls thus built, ever fallen, with the exception of one or two places, where openings left under them for the passage of water proved too small in time of heavy storms, and sudden floods consequently carried off the superstructure. To contrast his neat, tidy and permanent looking fences of this kind, with the tumble-down affairs most often seen, is to place good and bad farm-economy side-by-side in a forcible light. Major D.'s walls are not of much greater cost either—he builds them indeed at about a dollar and a quarter per rod. They are all regular and handsome, although partition walls between fields are not laid up with quite the care shown in those along the roads to make a smooth outer face. But uniform attention is paid to all that can promote their utility and permanence.

In *Feeding Cattle*, Major D.'s practice is to purchase at any age from one to two or three years as opportunity may offer, at prices admitting of profitable investment. He feeds until they are in condition for sale, and sells from time to time as they reach this condition, at any season of the year—being especially awake to the state of matters at the New-York market, and most often having a lot ready when prices indicate that an addition to the supply might be sent down over the Erie road, in time to relieve the necessities of the city at a cent or two a pound more than it ordinarily pays for the performance of this charitable duty. His main purchases are made in Ohio or Kentucky; and he generally gathers in about a hundred yearlings, at low rates from his own vicinity. In summer they have the best of pasturage—we visited one field, in which there were grazing eighty or a hundred head, where the grass if standing up would have reached their bellies, and when they lay down on it, was pressed into a luxurious mass, several inches in thickness, of compact and velvety bedding. On such grass Major D. intimates his opinion that cattle must grow fat, and will be very happy to make a comparative trial if any body thinks he can provide them with grain or other food capable of laying on the flesh better or faster. About a bullock to an acre and a half would be no more than he might easily graze, but he does not care to average closer feeding than two acres per head. About the middle of October, or when the frosts begin to take the sweetness out of the grass, he draws turnips to the pastures, tops and all—as many as the stock can eat. With these and the grass, they do well for four to six weeks longer, when, say from the middle of November to first of December, they are yarded, and, at night, shut up in stalls similar in construction to those used by John Johnston, of which we have already given description and figures. They have all the hay and turnips they will consume, and about a peck of grain apiece to those which must be brought into condition for early sale—two quarts for those which are to go to grass again in spring. In the yards they have an abundance of straw, of which they eat as they will; the sheep have acess to the rest, and what is left goes into the manure.

This manure Major D. takes direct from the yards to the fields in spring as it is wanted, thus having to handle it but once. A portion is plowed in on corn or potato or other root fields—the remainder spread as a top dressing for the grass, &c.

We went into a field which after laying in pasture since it was cleared, had been plowed up to level the knolls and secure an even surface for re-seeding. Excepting an annual application of plaster, it had never been manured, save by the animals as they grazed. The sod upon it was most remarkable, ranging from *four to nine inches* in thickness of closely matted roots, and furnishing by decay a quantity of manure, the fertilizing value of which is scarcely to be computed. Hands were then at work picking stone from this field, and two harrows dragging it, which latter operation had to be repeated again and again before it was smooth enough to sow. Major D. was putting it in turnips—after the seed was sown giving it a thorough rolling. He sows the Norfolk and Aberdeen varieties, preferring them to ruta-bagas. He generally raises also large quantities of carrots, of which he has found one bushel worth two or three of turnips for fattening purposes. After digging these roots in the fall, they are heaped and covered with straw until the weather becomes very severe, when what have not been fed out are stored in barn cellars.

A mixture, of which Major D. has planted quite a little patch, is as follows: half a bushel of buckwheat, to two bushels of oats and a peck of barley per acre. The grain threshed out and ground is excellent for feeding, especially mixed with boiled carrots.

The Major mentions that since he has farmed, his house has never been without good pork, potatoes, or apples. In their season he raises an abundance of garden vegetables, peas and beets, &c., &c. He has employed from 25 to 50 men through the summer for many years, and by providing healthy food, well prepared, in ample quantities, never has any of them give out from sickness. With pork in all its varieties, ham, bacon, &c., boiled and fried, his table is well supplied, and he thinks them far more healthy than fresh meats for men engaged in field work.

Mentioning apples reminds us of other fruits, of different kinds, of which our friend has a vast number of trees in bearing. The treatment he has employed to keep them free from insects, has also proved serviceable as a remedy for the black knobs or knots which grow upon the plum. By putting soft soap in the crotches of the main branches, and washing the tree with lye, together with the application of ashes at the roots, Major D. keeps them away from his trees, and he thinks he can grow them off from trees already severely affected—at least he is trying the experiment, and has already found it in some measure a successful one. This may be found a hint of value to our horticultural readers.

Leaving Major Dickinson, of whose experience and practice the foregoing remarks give but a very hasty and imperfect sketch, before concluding, we must add a note or two of our stop at Bath. Here we were kindly met by our friend, Mr. George Edwards, in whose company we enjoyed several pleasant calls upon other subscribers, among whom were Messrs. Wm. Hamilton, John Richardson, C. A. Smith, Robert B. Wilkes, Henry McElwee, the Messrs. Robie, and Mr. James Lyon, for whose politeness we have already mentioned our indebtedness. These gentlemen are all of them among the most thriving, active and enterprising farmers of that section, and would do no discredit to any other in the State. Mr. Edwards himself has a very nice place of a hundred and twenty acres bordering upon a beautiful little sheet of water, and especially noticeable for the simple, convenient and economical manner in which it is laid out. Mr. Lyon includes in his farm some of the best of the valley-lands of the Conhocton. Mr. Wilkes we found hard at work reaping in the field—having one of Allen's machines, on which he has expended much labor and money, until he has rendered it a most serviceable instrument. The soil of this region is well adapted to general farming purposes, that of the intervale producing fair crops of a wide variety of products, and the lands back upon the hills, which are less productive of grain, being good for wool-growing and grazing purposes.

At Gen. O. F. Marshall's, whither we drove after an early dinner, at a distance of about seven miles, we had a pleasant time in looking over the farm and stock. As our readers are aware, Gen. M.'s hobby is sheep, of which he has long been engaged in breeding Spanish Merinos. We saw several fine rams—among them a two year old whose fleece sheared this spring at just a year's growth, weighed $17\frac{1}{4}$ lbs, and a yearling which sheared $13\frac{1}{2}$. He has a large flock and gives them a great deal of attention. In one other of his farming operations we took considerable interest from its comparative novelty. He has a fine maple sugar orchard from which, with the exception of one single year, he has always derived his whole supply of sweets—having sometimes made as much as 2,000 pounds. This year his crop was about 800 lbs. His apparatus for making it is very convenient and complete.

Topping and Harvesting Corn.

There is much difference of opinion and practice among farmers in the management of their corn crops Some always practice cutting the stalks soon after the kernels have become glazed or checked, believing that such a course hastens the ripening of the corn; and the removal of the stalks greatly facilitates the process of harvesting, and that green cut, well cured cornstalks are much more valuable as winter forage for cattle, than the same would be if left uncut till the corn was fully ripened, as is the practice of some. We presume this is a correct idea. But experiments made some years since, by the Hon. W. Clark of Massachusetts, seem to prove that the number of bushels of corn per acre was very much lessened where the stalks were cut, compared with portions of the field where the corn was not topped, but all left till the corn was fully ripened. By his experiment, the loss in grain must have been much greater than the increased value of the green cut stalks over the perfectly ripened fodder. But a difference of ten or twelve days time in cutting the stalks might make a material difference in the value of the grain. We think it the safest way for those farmers that practice "topping" their corn, to cut their stalks quite late, rather than a few days too soon.

Well cured corn fodder is a valuable winter feed for farm stock, and much care should be exercised in saving it in the best possible condition. Many farmers are quite too negligent in this matter. We have seen the stalks cut quite green, and many days too soon, bound in large bundles and put up in large shocks, where it remained during all weathers for weeks, or till the corn was harvested; heavy winds blew over many of the shocks, and drenching rains thoroughly wetted them, thus nearly ruining them as fodder. We have seen others cart them directly from the field as soon as bound in bundles, where from want of room and care a large portion of them became mouldy, and nearly rotten and worthless. We know some careful farmers that pursue quite a different course. They do not top their corn until most of the tops of the spindles are dead, and many of the husks have lost their green color. They cut their stalks in fair weather, bind them in small bundles, cart them to the barns, and place the bundles *astride* of poles extending from beam to beam across the barn floor. Here they dry without heating or growing moldy. If they have not room enough over the barn floor, they make use of hovels or sheds, in curing them. Those that practice this method think they are fully compensated for all extra labor, in the enhanced value of the fodder.

Many farmers prefer letting the crop stand till the grains are principally glazed, and then cutting all near the surface of the ground, and shocking in the field, letting it remain there till dry enough for husking. Some contend the corn ripens as well as if left upon the separate hills. The fodder, as a whole, is thought to be worth much more cured by this method, than by any other process The crop, when thus cut up and shocked, is placed beyond injury from frost—a matter of much consequence some years. There is but little if any thing gained by cutting and shocking corn after it has been stricken by frost. In cutting up the corn as soon as fairly glazed, the fields can be cleared in season for sowing winter wheat or rye—sometimes a matter of much consequence.

Some contend the soundest and heaviest corn can only be grown by letting "nature take its course," that is, let the whole plant remain uncut till the corn is "dead ripe." This course, probably, may insure the greatest weight of corn per acre, if the autumn is favorable to its perfect maturing. We have more than once pursued this course, but found the labor of harvesting much greater, and thought the fodder less valuable.

Seasons vary so much, and the circumstances of farmers differ so greatly, (to say nothing of their prejudices,) that it would be idle for any one to attempt to point out *the* one best way—or rather, to say there was but *one* best way under all circumstances.

From present appearances, and the best information within our reach, we think it may be pretty safely predicted, that over a wide range of our country, this is not destined to be a great corn year. A large part of the growing corn is too late to fully mature, unless we have an unusually warm September and October, a circumstance hardly to be expected. Therefore it will probably be the safer course for most farmers to cut up and shock their corn as soon as it will any way answer,—that is, if it can be done before receiving much injury from frost; by so doing they may save much in the value of fodder, and much corn would ripen in the shock that would be nearly ruined by frost. We have several times seen corn cut up, and tied in moderately sized bundles and slung across poles over the barn floor, where it has dried perfectly, and the fodder was much better than it would have been had it been shocked in the field. We have seen various methods of shocking corn in the field. Some put a dozen large bundles into a shock; such large stacks do not dry well. Others cut and stand it round a hill purposely left uncut. We have seen corn very safely stooked by only using five bundles to the stook—one in the centre, and one on each of the four sides; a band of rye straw was tightly tied around the whole some four feet from the ground, and the tops of the stalks bent over and tied down. Such stooks stand better than larger ones, and also dry much better.

Corn, when harvested before it is properly ripened, and dried in the field, as much of it probably will be the coming harvest, is sometimes injured when stored in large quantities in the crib, or the slatted corn house. If dry, windy weather follows after the corn has been cribbed or housed, it generally dries well, but if long continued damp or rainy weather succeeds, the corn is very liable to heat and mold, &c., injuring its mealing qualities. To guard against such a loss, we have known farmers to have a tight box stove in their corn houses, and they kept up a brisk fire a portion of the time during the damp weather, thereby drying their corn very fast, and saving it from injury.

The labor of manuring, plowing, planting and hoeing an acre of corn, is no trifling job in many situations of the country, and it should be the aim of the farmer to make the most of this labor, and not cheat himself out of a portion of his work by suffering his corn or corn fodder to be injured or wasted through negligence or lack of care on his part.

Lightning Rods.

Messrs. Editors—In answer to my inquiries with regard to lightning rods, you refer me to the Register of 1855. I have examined those directions, and I am not yet fully satisfied. Does the writer know from test, that an iron rod will be a durable and efficient conductor? Will not rust impair, and in time entirely destroy its conducting power? I also wish to know how the wooden supports are made, and how they can be used in fastening the rods to the chimney.

J. D. Browne, in the Patent Office Report of 1854, gives directions for erecting rods. He says iron will not do unless coated with some other metal, and he says that the size of an iron rod should be five or six times that of copper, and copper should be from one-half to three-fourths of an inch in diameter; that the rod should present but one point to the clouds, and that should be tipped with palladium; and that it may be fastened to the buildings with iron staples, but without the glass insulators. To erect a rod after his directions would be rather expensive, and if the rod described in the Register is just as good and durable a conductor, I for one should be glad to know it. The rods put up all through this section, are half inch iron, fastened to the building with iron supports, insulated with glass. I wish to have a rod, and have it put up in such a manner that it will be a sure and durable protector; but I am not able to have such a rod as that described by Browne; but if such a rod as that described in the Register, after standing for years has been tested by the lightning, and proved itself a good conductor, after learning how the wooden supports are made and how fastened to the chimney and roof without injuring the latter, I shall not be long without one. W. E. Huntley. *Westford, July*, 1857.

The science of Electricity is but imperfectly understood by those who generally write upon it, and there is often a great deal of nonsense mixed up with truth in the directions for erecting lightning rods. We can only repeat the instructions from the Register, with a few reasons added.

Copper is a better conductor than iron, but it is many times more costly, while iron possesses a very important advantage, namely, greater *stiffness* for security against wind, and this stiffness is increased many times, at a given cost, *by its greater size*. *Iron* is therefore the metal to be always used. Rust is nearly a non-conductor, but a small coating of rust on the outside will not impair the efficacy of a rod, while the great mass of it remains pure metal, any more than a coat of paint. This we know by experience. Half an inch in diameter is rather small, but will do; five-eighths or three-fourths is better. A larger size has two advantages—it is stiffer, and more secure from blowing down; and it admits of a more free discharge of the fluid, with less danger of flying off to other conductors, or to the building. Such a rod would remain hundreds of years on a building, without becoming materially rusted, or so as to injure it, except it be the portion below the surface of the earth. This might be converted to rust in a long series of years, and would in that case need renewing, or still better, this part may be made of a few copper straps, spread in different directions to dissipate the fluid. Copper will not become converted to rust, like iron, when exposed to water or moist earth for ages.

We have known an iron rod, three-fourths of an inch in diameter, with a single point, to carry off an electric explosion so loud and terriffic that the heaviest cannon would be a mere pop-gun to it, without any injury to the building. It was wholly iron, with a silver point; had been erected many years; and penetrated into the earth six feet, where a bushel of charcoal had been scattered. The single point was not sufficient to bring off all the fluid properly, and it was consequently melted into a ball the size of a rifle bullet by the lightning. Several points, by dividing the discharge, would probably have lessened the danger and intensity of the explosion, and not been melted or injured. There is no particular advantage in a palladium point over iron or copper. Iron points, ground sharp like a needle, and polished, will remain sharp for ages, for no water can remain on them, and they will never become materially rusted—however, if our correspondent has any fears on this point, he may tip them with copper.

Wooden supports are far better than any thing else, for several reasons. They are cheaper, more easily secured, will not direct the fluid into the building, as iron, and may be made longer so as to keep the rod further off from the building. The upper support on a chimney may be a light square wooden frame, *a*, fig. 1, nailed together, and accurately fitting the chimney outside one of the rods forming the frame projecting a foot, through which a hole is bored to receive the rod. A carpenter will make such a frame in half an hour. At the foot of the chimney, a piece of plank with a hole through the upper edge, as shown by Fig 2, is nailed on the roof, so as to keep the rod about six inches from it. One or more like this may be placed between the chimney and eaves, to keep the rod above the roof. At the eaves, a very simple fastening is made, consisting merely of a piece of board, with a hole through the outer end, nailed on the roof, or still better beneath the eaves, and projecting a few inches. Should any suppport at the side of the building be required, it may be made as shown in Fig. 3.

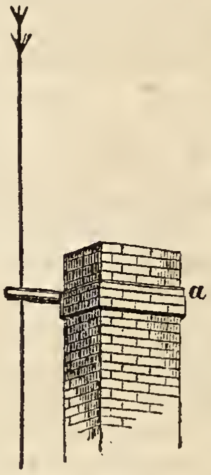

Fig. 1.

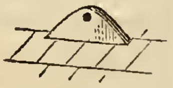
Fig. 2.

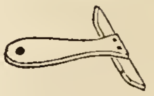
Fig 3.

Any blacksmith can make the rod, by simply welding rods together, when it may be easily dragged home behind a wagon; and a carpenter, or even any common farmer of ordinary ingenuity, will make the supports. If the upper end has several points, the lower end of the rod should be first passed through the supports before they are fastened to the building.

Steam Plow.—A correspondent informs us that a steam plowing machine has been invented, and is now being built at Dayton, O., which it is thought will answer the expectations of the public.

Fruits for Severe Climates.

Major M. R. Patrick of Sackett's Harbor, formerly so well known in military life, is now still more famed for his influence and successful labors in the advancement of those great arts of peace, Agriculture and Horticulture—so that it may be said of him, at least in part, as Pope wrote of Lord Peterborough,

> Even he whose lightnings pierced the Iberian lines,
> Now forms my quincunx, and now ranks my vines.

He has recently stated to us some interesting and very valuable facts, in relation to the hardiness of our principal varieties of fruit, on which he has made many observations in the locality of his residence,—a locality remarkable for its severity in winter, both from intense cold, and from sweeping winds. The recent unprecedented sharp winters at such a place, furnish a very decided test of the hardiness of any sort; and whatever has endured these winters untouched, may be set down as clearly and distinctly hardy, for nearly all localities.

Out of a large list of apples, the following have proved through successive winters uninjured, and being at the same time vigorous growers, are pronounced as "best" for these two qualities:—

Hawthorndean,
Sops of Wine,
Late Strawberry
Jewett's Red,
Orne's Early.

The next list embraces those which are designated as "*good*" or "*fair*," in these particulars:—

Early Harvest;
Summer Queen,
Fall Orange, (very good,)
Hawley,
King,
Am. Gold. Russet, (very g'd).
Swaar, (very good,)
Benoni, (very good,)
Red Astrachan.
Ribston Pippin.

Of the following, a part have proved valuable for the preceding qualities, and a part have been injured:—

Rambo,
Dyer,
Fameuse,
Gravenstein.

The foregoing are usually strong growers, and have resisted the effects of the winter and spring, and may therefore be recommended with some degree of confidence for cold localities and severe exposures.

The following have been found but *half hardy:* Jonathan, Domine, Sawyer Sweet, Sweet Baldwin, Danvers Sweet, Belmont, Canadian Reinette, Yellow Bellflower, Spice Sweet, and *sometimes* the Dyer, Gravenstein, Fameuse, Hawley.

The following have been most injured by winter:— Baldwin, Twenty Ounce, Tallman Sweet, Scolloped Gilliflower, Fall Plppin, Sweet Bough, Summer Rose, Early Strawberry, Early Joe, Jersey Sweet, Duchess of Oldenburgh, English Summer Pearmain, Roxbury Russet, (very poor,) Westfield Seeknofurther, Ladies' Sweet, Esopus Spitzenburgh, Porter, Lowell, Rambo sometimes, Belmont sometimes, Lady Apple, Newtown Pippin, English Russet, Northern Spy mostly, Red Canada, Rhode Island Greening, Peck's Pleasant, and occasionally the Swaar.

The Soil and Exposure.—"These trees," observes Maj. Patrick, "are in a sandy soil that freezes deep, and does not hold water; though not thorough drained, is crossed frequently by deep open drains. It lies on a plateau nearly level, swept by winds from a westerly or north-westerly direction, that come down the lake through its entire length. The soil is not made rich, but kept well tilled, and the wood of the trees well ripened, protected from these westerly winds by a dense screen of Silver Maple and Mountain Ash.

RESULTS ON DWARF PEARS IN THIS LOCALITY.

I have 100 dwarf pears received from yourself; this is their fourth summer. Louise Bonne de Jersey does well, and gave magnificent specimens of fruit last season. Duchess d'Angouleme showed a few specimens last year, very poor and worthless; Virgalieu showed a very few last year, and 2 or 3 this, cracked and worthless. The Tyson is a strong, hardy, luxuriant grower, but has not fruited; the Vicar of Winkfield has not fruited, and does not grow so well or appear as hardy as the L. B. de Jersey, which is a fair and healthy grower. The Duchess kills back badly every winter; its old wood is diseased, and of course it will be worthless, though it sends forth a strong growth of summer shoots. The Virgalieu trees, with the same treatment as the others, will not grow nor make any new wood. All but one or two are in a dying state.

STANDARD PEARS, AND MODE OF TRAINING.

Of standards, I have lost all, or nearly all, except those of two summers (and on their third) growth. These I am training rather as bushes than trees, and they are doing well. I have not a list of the varieties. Observation causes me to believe that in the exposed position of my trees, I must adopt that method of training all my fruit trees. Such of my apples as are thus trained being healthy, while the others have become diseased.

EFFECT OF THE WINTER AND EXPOSURE ON CHERRIES.

I received from you scions of cherries two years ago, which I worked on the Mazzard, at standard height, supposing the stock to be more hardy than the scion. They grew well, were stopped back and ripened their wood, but with the exception of the Cleveland, Bigarreau, White Herefordshire, and Napoleon Bigarreau, nearly all out of five hundred were killed, even the Mazzard body, last winter. These trees were sheltered by the screen near the pears, while about 50 of two years longer growth, standing wholly exposed to the wind, lost only about half their number. *They* were Black Tartarian, Yellow Spanish and Elton. From you I received scions of Gov. Wood, Rockport, Burr's Seedling and Great Bigarreau, which have all been killed; while Cleveland, Napoleon, Downer, Holland, Florence, Downton, and Black Eagle, have escaped."

We regard these facts, furnished by our friend Patrick, as of great value, and especially so to those planting orchards in cold regions, enabling all such to save themselves from severe disappointment and heavy losses by making a proper selection.

By referring to similar lists from our *western* correspondents, we perceive nearly the same results, but with some exceptions, for if results vary in the same orchard and nursery, as the preceding lists indicate, there must be some variation in different regions of country. But those sorts which are found to escape in *all* the different circumstances, and which stand at the head of the lists furnished by all reports, will of course be regarded as perfectly reliable.

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Cahoon's Seedling Pie Plant.—We have received from B. P. Cahoon of Kenosha, Wis., a box containing fourteen stalks from the variety of Rhubarb originated by him, which are fully equal in size and flavor to those noticed by us last year. One or two of them had the leaf still attached, the main ribs on the back of which are nearly as large as ordinary stalks. When we add that each stalk of several of the smaller ones tried by us, would make three good sized pies, the fact will perhaps go as far as their dimensions in feet and inches. Mr. C. very justly remarks in the accompanying letter: "The article is now rather out of date in your market, but here in the west where we have but little fruit, it is highly prized, and above all other varieties, for the roots send up new leaf stalks till November. It is as fresh and green in October as in May, when grown on moist land and on roots of one and two years old."

Overhanging Fruit Trees.

Notwithstanding all the "counter opinions of lawyers" on this subject, I think we would often be better off, if instead of consulting them on every difficulty, we would infuse into our opinions and conclusions, the plain, clear, and immutable principles of justice and common sense.

A. and B. each buy from C. a piece of land, and his deed to each, as usual, confirms to him, his heirs and assigns forever, the peaceable and exclusive right and possession of *every* part and parcel thereof, and of *every* thing thereunto in *any wise* appertaining or belonging, and for his only use and benefit.

B., without obtaining the consent of A., planted a row of fruit trees all along and near to A.'s line, who cultivates his land up to the line in ordinary vegetables.

In course of time B.'s apple, cherry and other trees became so large and overhanging, that under them, and for a considerable distance from the line, A. could not raise any crops to remunerate him for his manure and his labor, and he very naturally came to the consion that their roots underran his line in as great a proportion as the tops overhang it, and consequently he was entitled to so much of the products as grew overhanging, in justice to himself, for he lost all the use of his ground. Besides as he was not consulted and his consent obtained for the planting, he refused to let B. enter upon or over his land, so that B. could not reach over to pluck nor pick up any of said overhanging fruit, A. alledging his clear title to the *sole* occupancy and enjoyment of all his land, and *every* thing thereto in in *any* wise appertaining.

Now, does any one, (not a lawyer,) undertake to say A. had not both the legal and moral right so to say and do in self-defence, if he so chose? Besides, why did not B. plant his trees so far off A.'s line as not to overhang it at maturity, and then have cultivated the land near the line in such manner as would not prove eventually a nuisance to A., unless it was to obtain more room, and consequently at A.'s cost?

Again—A. now decided to erect a large edifice upon his lot, and adjoining to B.'s line. Does any one doubt his right to do so, and to dig along the line as deep as his necessities require, and to build as high in the air as he wishes to, provided in doing so he does not intrude upon B, nor do him damage on or over his premises, present or prospective? Of course he must cut off all overhanging branches with their fruit, and need *not* ask B.'s permission either; but not to enter on B.'s land against his consent.

Also—A. wants the light and sunshine along his line back of his house, still heavily overhung by a great apple tree, the overhanging fruit of which would be no adequate compensation. Of course his right to clear it off cannot be denied—nor, while remaining, can his full right to all its products be denied? W. N.

N. B.—We all know special agreements between parties makes the law in these cases.

Remedy for Unfruitful Trees.

Can a fruit tree be made to blossom, at the proper season, and develope its character? In rear of my residence stands a seedling Peach tree, or rather a Peach bush—for at the surface of the ground the trunk diverges into three or four stout limbs—which is growing vigorously, and apparently is very healthy, is at least six, if not seven years old, but has never shown a single bud or blossom. The soil is coarse gravel with a very small admixture of loam. Can anything be done with it save cutting it down? O. W. *Norwich, Ct.*

Checking the growth by cutting off below the ground some of the principal roots, or by allowing the ground to become hard and covered with grass, tends to promote the formation of fruit buds. There are some of our best varieties of the peach, (the Early Crawford, for example,) that will form fruit buds before seven years old under any circumstances—and a tree which will not, as the above, may perhaps be of little value. Too bushy or dense a growth tends to retard fruiting.

Bees.

Your correspondent, R. H. B., of Burnsville, Illinois, asks "if there is any good work published on the culture of bees," and you refer him to three of the best American works. At the same time a wish is expressed that "Apis" would be a little more explicit in regard to his mode of treating bees.

As the season is over now, so far as the collecting of honey is concerned, (except in regions where buckwheat is extensively cultivated,) and the bees are domiciled until next spring, I propose in future numbers of this paper to invite inquiry upon the subject of bee keeping, at the same time advancing my own views. As I have no "patent" to present—no pecuniary interest at stake, but simply the desire to awaken an inquiry upon the subject, I hope at the outset to disarm prejudice, and at the same time ask impartial criticism. To begin at the beginning, I send annexed, an article on the apiary itself: "*The best situation for Hives and the comparative advantages of Hives in the open air, over an enclosed Bee house.*"* In future numbers I propose to discuss the relative merits of different hives, and the best management, &c. I have about forty different works on bees, and for those who wish to read upon the subject, I would recommend the following authors:

1. *Bevan* gives the best natural history of the bee, and as a literary work is unsurpassed. It is also practical and very truthful.
2. *Langstroth's* book is undoubtedly the most original and scientific *American* work ever written. For those who would make bee keeping a *study*, it is an invaluable work. His hive is the only one which will give the naturalist an insight into their internal economy.
3. For the farmer, who has not the time or patience to give to the above work, (for it requires study) I would recommend *Quinby's* book. It is simply an improvement upon the old fashioned way, and for the generality of farmers, who care not to go beyond the acquisition of a few boxes of honey at the end of the season, it is perhaps the best book. I do not mean of of course, to cast any reflections upon many other excellent authors, at the same time, to any one who has read most of the bee books issued in this country, it is apparent that they are but compilations from the old English and Scotch masters. I should have mentioned "Huber," the "Prince of Apiarians," but his book is too rare. Huish's book is a vindictive assault upon the various theories of Huber, and every day only serves to prove more and more of his errors. For the children, the "Sunday School Union" has issued a capital little book called the "Wonders of the Hive." The best *essay* on the subject, is one reprinted from the "Quarterly Review," among a series called "Murray's Reading for the Rail." Apis. *Whitemarsh, Penn.*

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Water Rams.—Some time ago some one asked in your paper as to water rams. After twelve years experience, tell him from me, that they are a nuisance—the wheel is better, but not much; a good pump is worth a million of the two. A. L. E. *Philadelphia.*

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* The article referred to, was by mistake, published in our last number.

Riversdale,

SEAT OF CHAS. B. CALVERT, ESQ., PRINCE GEORGE'S CO., MD.

Shortly after leaving the Beltsville Station, the traveller by rail from Baltimore to Washington, perceives a sudden acceleration in the speed of the train, and looking out to ascertain the cause, finds that the skillful engineer is taking advantage of a remarkably long and level tangent to urge his iron steed "to show its mettle" (no pun intended.) This tangent, for more than two miles of its course, and though it terminates in the bold curve that sweeps up to the Bladensburg station, passes through the centre of *Riversdale*, one of the finest estates in Maryland, and the property of Charles B. Calvert, Esq., late President of the Maryland State Agricultural Society.

Following the curve of the railroad northwardly from the Bladensburg station, and crossing the old Baltimore and Washington turnpike, a few steps conducted your correspondent, a few days since, within the boundaries of this extensive and highly cultivated demesne, and a very short walk in addition brought him, accompanied by the owner, under the roof of one of the most hospitable mansions of the most hospitable county of Prince George. After a few moments rest, taking the license of a relative and friend, I cut short an incipient agricultural discussion between my host and another, by a proposal to visit the pleasure grounds, green-houses, and other improvements made since, as a child, many years previously, I had visited this charming spot.

THE GROUNDS AND HOT-HOUSES—VERBENAS—LAKE AND FOUNTAIN.

From the large saloon in the centre of the house, through lofty arched windows opening from the floor, we passed out upon the tesselated marble pavement of the southern portico, and thence between the stone columns, descending a short flight of steps, we found ourselves upon a smoothly gravelled walk that ran in gentle curves on either hand past arbors covered with climbing plants, until its level meanders were lost in the shrubbery. Immediately before us was a broad parterre, on which, from the smoothly shorn grass, rose several masses of artificial rock-work, partially covered and thickly interspersed with a profusion of verbenas, petunias, portulaccas, and other plants. To the summit of the central mass a small tube was conducted, and, concealed amid the flowers, was compelled to send up at pleasure, its cool and refreshing jets of feathery spray. From the parterre descended three terraces, each about 150 feet long, and laid off in serpentine forms. At the foot of each were beds of flowers. On the left a flight of rustic stone steps led to the grapery, and on the right a similar descent conducted to the hot-house. The grapery is heated by hot water, and is built in the form of an L, with curvilinear roof of glass; the main building being 100 feet long by 20 feet wide, and 22 feet high, and the wing being 50 feet long, and otherwise of the same dimensions as the main building. I noticed among the grapes in cultivation, the Muscat of Alexandria, Black Hamburg, Frontignan, Chasselas of Fontainblau, and Pope's Black Hamburg. This grapery is to be very considerably enlarged, and Mr. Calvert thinks he can cultivate the grape in this way, not only as a luxury, but as a source of profit.

Passing from the grapery to the hot-house, we found this building to be 80 feet long, and containing a large number of plants in course of propagation by Mr. Calvert's industrious gardener. In front of this structure were planted the handsomest bed of verbenas in this part of the country. All the finest varieties had been obtained from Mr. Dexter Snow of Chicopee, Mass., who, as the readers of the Co. Gent. are well aware, cultivates this plant as a specialty, and is known as the "Verbena man." The variety and brilliancy of these verbenas would astonish any one not acquainted with the perfection to which modern floriculture has been brought. Mr. Calvert has raised a new seedling portulacca, which I saw growing near these verbenas. It is one of the most beautiful and curious of its species. Its color is a most delicate peach blossom, with light cherry colored stripes. Just below the terraces already mentioned, with a small interval of 200 feet of lawn, lies a pretty little lake of a circular form, and containing a small island united to the main land by a light arched bridge of lattice work. Upon this island is a Chinese pagoda, resting upon a broad base of rock work, in which grow a profusion of petunias of every hue and shade. To this little mere we next wended our way along a slightly descending path, and after trying my skill as an oarsman in one of the skiffs moored to the little wharf erected for the convenience of the boys of the family, proceeded to examine the source for supplying, and the means of elevating the water for the fountains and the uses of the household. The water is raised to the top of a tower adjoining the house, at present by horse power, but it is intended to substitute wind power. The tank when filled contains 10,000 gallons.

ORCHARD AND FRUIT GARDEN.

The fruit and vegetable garden lies to the east of the dwelling, and contains from six or seven acres. It is, in every part, protected from the north by a brick wall, though a fine young Osage orange hedge is fast growing up into an additional protection. Here we saw a fine young orchard of several hundred dwarf pear trees, and a large number of different varieties of the maple—the latter planted in nursery rows until they shall have attained sufficient size to be planted out as ornamental trees, about the place. Mr. Calvert mentioned the establishment of Messrs. Thorp, Smith, and Hanchett, of Syracuse, in terms of high praise, and said he now obtained his fruit and ornamental trees from those well known nurserymen. I noticed large beds of strawberries. Mr. Calvert has Hovey's Seedling and McAvoy's Superior, but prefers the Alice Maud. He showed me quite a large number of plants of the new Peabody's Seedling Hautbois—they were sending out a great number of runners and making very vigorous growth—and said that his plants had produced fruit this year which fully equalled the description given by Mr. Peabody. The peach trees looked flourishing, and some dwarf pear trees obtained a few years since from M. P. Wilder, Esq, President of the U. S. Ag. Soc., were loaded with fruit. The grapes cultivated in this garden were the Catawba and Isabella. Among other vegetables, the immense cabbages were particularly remarkable, and the large space devoted to the growth of the yellow carrot attracted my attention. The latter vegetable is cultivated thus extensively as food for stock; chiefly for horses.

THE MANSION—AGRICULTURAL LIBRARY

After inspecting the floral and vegetable and pomological departments we returned to the dwelling, before proceeding to visit the farm, and its appurtenances more strictly agricultural. The dwelling consists of a main building of two very lofty stories and attic, 66 feet front by about 50 deep, with porticos supported by white and blue marble in alternate squares. The wings are two stories high, and though not so elevated have stone columns on front and rear, and paved with tiles of together a front about equal to that of the main building. In the east wing are contained the kitchen and other kindred household apartments. In the west wing the second story contains servant's rooms, whilst upon the ground floor, besides other rooms, is the private office and library of the proprietor. This office is quite a model apartment for a farmer's *sanctum*. The sides are filled up with book-cases, with glazed doors, containing an extensive and well assorted agricultural and miscellaneous library. A large and convenient library table and desk occupied the centre of the room, and on it might be seen the very latest of the best English, Scotch and American publications on Agriculture; whilst in one corner, were placed the tripods and levels, compasses, &c., used in laying out and draining different parts of the estate. Among the agricultural publications referred to, I noticed the last number of "The Farmer's Magazine" a monthly published in London —the last number of "The British Farmers' Magazine," a quarterly published in the same city—The Journal of the Royal Ag. Soc. of England,—and the Journal of Agriculture and Transactions of the Highland Ag. Soc. of Scotland—the Am. Farmer, published in our own State, and last, though not least, the "*Country Gentleman.*" For the last named, Mr. Calvert expressed the very highest esteem, and said he considered it the best paper of its class published in this country. He has all the volumes of the "*Country Gentleman*" from its commencement, and many of them very handsomely bound. It is evidently a great favorite.

The material of which the mansion is constructed is brick, rough cast. The whole structure is of the most substantial and durable character. On each side of the north portico a small forest of Camellias is growing, in pots—they are now, however, of course, with the exception of an occasional flower, out of bloom. From the north entrance the view extends over fields almost perfectly level for nearly two miles, and all within the limits of the estate, until arrested by the woods bordering the banks of the large stream which passes through a great portion of the property. The lawn at the north is adorned by a fountain that plays amid flowers, and is supplied in the same way as that on the south, already described; whilst, dotted about upon the green sward, are various ornamental trees, and, among them, some large and beautiful specimens of the native American elm wave their long, gracefully curved and pendulous branches.

THE FARM—MOWERS—OATS AND CORN.

A stay of nearly two days did not suffice to see all that merited notice upon this very large estate, but being desirous of witnessing the operation of two mowing machines then engaged in cutting grass, we proceeded on the afternoon of the first day to examine them. One of the machines was one of "Manny's Patent" made at Amsterdam, N. Y., by Marcellus, and was drawn by two mules; the other was one of the same patent, but made by Ball, of Hoosick Falls, N. Y. The machine last named was not in operation, and appeared to have received some injury, or to be invalided from some cause. The agent for the sale of these machines in Prince George's county had undertaken to cut Mr. Calvert's grass at the rate of one dollar per acre, and when we went to look at the Manny's patent it was just finishing, with the most perfect performance, the work of cutting down two hundred acres of timothy. The same party who was agent for the "Manny's Patent" was also agent for McCormick's machines, but told Mr. Calvert that he had not been able to sell any of the latter in that neighborhood, and found Manny's to be the only saleable machine.

Near where the mower was at work I noticed Mr. Calvert's field of wheat. The grain was fair and plump. Mr. Calvert does not bind his wheat into sheaves, but rakes it up into cocks at once, and caps it with a single sheaf. This plan he has pursued for many years, and says he finds it by far the most economical of time and labor, and that this method preserves the wheat better from the weather, and presents no obstacle in threshing. All the labor and time expended in binding the sheaves, in setting them up in proper position, in cocking, and then in cutting the bands when threshing, are saved. The wheat had not been drilled.

To the south of the dwelling the cradlers were busy in cutting a very large field of oats. Upon this field the crop was heavy, and of the two varieties of that grain growing upon it, Mr. Calvert gave preference to the Polish, which is, however, a little later in ripening than the ordinary sort. The crop of corn, as is the case almost universally through this state, looked remarkably fine, and had attained in consequence of the very favorable season, unusual growth. The sort now chiefly planted by Mr. Calvert is that known as the Yellow Kentucky stock corn, and is from the seed of the last crop ever raised by the lamented Henry Clay—one of whose sons sent Mr. Calvert a present of two bushels of the seed shortly after his father's death.

EXTENT OF THE ESTATE—BARNS—THE GREAT COW-HOUSE.

Riversdale includes within its boundaries nearly 2,200 acres, five hundred of which are in wood, five hundred in grass, and the remainder, except a portion which has been laid out into lots for villas in the village of Ellaville—so named in honor of the daughter of the owner—is under cultivation. The farm buildings are numerous, and some of them remarkable for their size and completeness. In one of the barns I observed that the hay was elevated to its place by means of that most useful modern contrivance, the horse-fork, and a block and tackle fastened at one end to a joist near the roof of the barn; the rope being passed down hence to the ground and the usual system of pulleys made available. To be three or four times thrust in and as often elevated to the proper position for delivery on the mow, was sufficient for this huge fork to empty a cart of its load of hay. The saving of labor and of time by the use of this fork is immense, and the height to which hay or fodder may be elevated with it, is a most important consideration. In another barn of large size—built in what is known as the Switzer style—I found a very large cast iron screw about ten feet long, placed in the center of the upper deck, and an additional length given to it by an oak cylinder attached and playing in a socket attached to one of the joists above. The whole placed in a vertical position and formerly used to press tobacco—the hogshead being placed on the ground floor beneath. The pressure was effected by means of an external screw or large nut, with cast iron arm attached, into which arm a wooden sweep or lever was inserted, and then the revolution produced by horse power. By this means a hogshead of tobacco has been pressed in thirty minutes. It is now designed to apply this contrivance to pressing hay in bales. The most remarkable farm buildings upon this estate, however, are the great octagonal cow-house, and the buildings adjacent. The cow-house being octagonal, stands in the center of a large yard of similar shape, with an interval of sixty feet between the sides of each. This yard is enclosed by buildings for the accommodation of sheep, hogs, calves, cows with calves, and poultry. There are four entrances to the yard, and as many to correspond and exactly opposite, in the central building. This building is one hundred feet in diameter, two stories high, and surmounted by an octagonal cupola twenty feet in diameter, and having glazed sash on every side, accessible by a spiral stair case from the interior, and movable—so that light and air are thus supplied to the whole edifice in abundance. A fanciful iron vane in the shape of a cow, gilt, crowns the whole. In addition to the light furnished from the cupola, there are two windows in each of the eight sides on the first floor. The center of the first or ground floor, is occupied by a feed room thirty-six feet in diameter, whilst adjoining it, but separated each from the other by an interval of eight feet, and the outermost by the same interval from the wall of the building, stand two rows of cows facing inward. The cows do not stand in stalls, but are secured by stanchions. Behind each row of cows the ground is graded, and paved with brick, so that there is a descent from the center of each side of the octagon, parallel to the side, to the gutters, radiating through the angles, and in this way a perfect drainage is secured to the manure tanks on the outside of the yard. The second story is used for storing the provender. This building will accommodate 104 cows. A more detailed description of this structure would be given, but that an account of it has heretofore been published from the pen of the owner, in the 4th vol. of the Co. Gent., at page 108, &c.

THE STOCK—FERTILIZER—WIRE FENCES.

Mr. Calvert's herd now consists of Alderneys, Short Horns and Ayrshires. The Alderneys, however, he prefers. He has seventy head. His favorite breed of hogs, and the best in his opinion, are the Suffolk. Of these, as well as the Chester, with which he designs crossing to give size, I saw some fine specimens. From B. V. French, Esq., of Braintree, Mass., he thinks the best Suffolks are procurable. To the South Down sheep he gives the preference over the Cotswolds. Of the former he showed me some excellent specimens. He uses the portable sheep rack for feeding. They are sixteen feet long—have two small wheels at one end, and handles and legs like those of a wheel barrow at the other, so that they can be rolled with facility from place to place. The rack is filled by lifting the lids which overhang it, and afford protection against the weather to the sheep when feeding. For farm work he uses mules chiefly.

As a fertilizer, and from his own experience, the Columbian guano in Mr. Calvert's opinion, produced for the same amount paid, a much better effect than the Peruvian, and in this way he thought it should be considered cheaper than the latter. His proportions for bone dust and ashes, applied to the acre, are five bushels of bone dust to twenty bushels of ashes. Of grass seed he sows to the acre, one gallon of clover seed and one peck of timothy—and one gallon of clover seed and one bushel of orchard grass.

Wire fencing has been very extensively introduced upon this estate. There are five hundred panels of it. For the outside fence upon the turnpike, No. 4 wire is used, but for the interior fence No 6 is considered sufficient. On the turnpike sawed red cedar posts about two and half inches square at the small end, are used. A rail of hemlock plank six inches wide, is nailed on at bottom, and then five wires are stretched and fastened to the post by short iron staples. The two bottom wires are five inches apart, the next six inches, and the two top wires twelve inches apart. Each panel is eight feet long, and seventy-five cents the cost per panel.

UNDER-DRAINING WITH WOOD, &C., &C.

The under-draining at Riversdale is quite extensive, and is accomplished by first making the usual excavations,—then nailing two long strips of pine plank, six inches wide, so as to form a right angle in the direction of their length, and staying them by three short pieces nailed across the opening of the angle—(one short piece in the middle and two near each end) a trough is formed. This is placed in the ground with the angle uppermost like the roof of a house. The sections of these troughs are united by the joints being bevelled so that one will slide into the other. Wood placed under ground out of the reach of changes of temperature, and constantly saturated with water, will last a long time, and Mr. Calvert says this mode of draining has thus far proved successful with him; but it seems to me that he will find this sort of drain will not prove permanent, but will ultimately choke, and require constant care and examination and repair. He spoke highly of the Chinese sugar cane as food for cattle, and mentioned that he has planted it this year for that purpose.

In conversation with Mr. Clemson, formerly Chargé to Belgium, and so well known here as a chemist and writer on scientific subjects, whom I had the pleasure of meeting at Mr. Calvert's, he stated that the ordinary musk placed at the root of a peach tree, so that it might be taken up with the food of the tree, would affect the taste of the fruit. Many substances will affect the color of the flowers of certain plants, as is well known. Mr Clemson suggested oxide of manganese as best to impart a blue color to the Hydrangea; and Mr. Calvert said he had known ordinary marsh mud to produce the same effect. These remarks may suggest some interesting experiments to your readers. Among other useful agricultural implements, my attention was directed to an excellent clod-crusher, constructed like that made in England, and bearing the name of Mr. Crosskill.

This communication has already extended to such length, that the desire not to exceed a reasonable limit or to trespass too long upon your patience and that of your readers, warns me to bring to a conclusion this very imperfect account of a place containing so much to interest the agriculturist. E. L. R. *Baltimore, Md.*

Notes about the West.

A Stock Farm.—Among our calls on the Prairies, was one on Mr. John Edginton, who is, we believe, President of the Rock Island Co. Ag. Society. Mr. E. was not at home, but we had the pleasure of meeting him afterwards, when he informed us that his farm consisted of between 1200 and 1300 acres—that he had this season 170 acres in corn, 60 acres in spring wheat, and 30 acres in oats, and about 300 acres seeded to clover and timothy—that he kept about 200 head of cattle, and fattened 200 or more swine yearly. His income is derived mainly from the sale of these cattle and hogs, though he must have a considerable quantity of wheat to dispose of.

Our eastern readers will doubtless be surprised to learn that on all this large farm, with 200 head of cattle, and where the mercury falls from 10 to 25 degrees below zero, we found but one barn, and that a moderately sized one, intended chiefly for horses. The cattle are fed through the winter mostly on corn. The corn is cut up and stooked in the field in autumn, where it remains until it is wanted in the winter, when it is fed out by the load, the cattle eating corn, cob and stalk, or as much of them as they will. The hogs are turned in the next day, and they are supposed to find and eat all that the cattle leave. We could not look upon such a system of feeding but as most wasteful; but Mr. E. maintained strenuously that it was the most economical and profitable course for him to pursue. Admitting that he could make one-quarter or one-third more beef or pork, by providing proper shelter for hsi stock. and husking and shelling his corn, he contended that he could raise a quarter or third more corn at a less cost than he could provide shelter and husk and shell his corn. It is possible he may do this for a time, but that does not change our opinion of the system he pursues, for we believe that he might, with a different course, very greatly increase both the products and profits of his beautiful and productive farm.

Manures.—The idea is very prevalent among all the farmers we met, that manure is of very little value on prairie land, or at least not sufficiently so to make it worth the labor of putting it on the land. Mr. E. would seem to be of this opinion, as we saw no evidence that any manure was saved from his 400 head of domestic animals. Rich as the prairies are admitted to be, the course of farming now so generally pursued cannot fail to impoverish them, and we doubt not that even now the cost of saving and applying the manures which might be made on the farm, would be amply repaid by the increase of the crops to which it might be applied. Beside this, by the saving and application of this manure, *and in no other way*, can the present productiveness of the soil be preserved and increased. To our view no man is a *good* farmer—no matter how much money he may make from his farm this year or next—who does not pursue such a course as will not only bring all his tillable land into the highest state of productiveness, but enable him to keep it in that condition. That this may be done, and that too without the aid of foreign capital, has been often demonstrated in our pages.

The Grasses.—Thus far comparatively little attention has been given to the cultivated grasses, the farmers relying mostly on the supply furnished by the unbroken prairies, both for pasturage and hay. But the time has come to many, and is rapidly approaching, when all will have to provide on their own land at least for their winter forage Unfortunately timothy—the favorite grass with eastern farmers—and almost the only one sown at the west—does not do well on the prairie soil. When sown with clover a good hay crop may be expected for one or two years, but after that the timothy dies out; and last winter (for the first time as we were assured) the clover through a large extent of country was all winter-killed, causing a heavy loss to those who depended on their own meadows for hay. One gentleman who had 300 acres in timothy and clover, informed us that not more than one-half of it would yield enough to pay for mowing, and that the other half would scarcely yield a ton per acre. But we did see one good piece of timothy meadow, with a thick, well set sod, and we refer to it to enforce what we have said above about manure. It was on the beautiful and well cultivated farm of Dr. James Weed, situated on the bluff of the Mississippi river, back of Muscatine, Iowa, and for a visit to whose place we were indebted to J. H. Wallace, Esq., Secretary of the Iowa State Agricultural Society, who took us out from Muscatine in a buggy drawn by a Sherman Morgan stallion, with a little more energy than we should have liked to have ridden with the reins in less safe hands. In riding over Mr. Peck's meadows we were struck with the marked superiority of the timothy sod over any we had before seen. The secret of its compactness and the fine thick growth of grass was, however, readily understood when Mr. P. informed us that it had received the past season a good top-dressing of farm-yard manure. But, said we, do you think manure is of any use on this rich prairie soil? "Yes," said Mr. P., "manure is worth as much here as in Connecticut, though not as absolutely necessary here as there, and I save and apply all I can make." Here was proof positive, were any needed, to show the value of manure even on prairie soil, and the sooner the farmers on it learn its value the better it will be for them. If timothy will do well with an occasional top-dressing, the farm-yard manure will be found of great value for this purpose alone. Mr. De Graff of Buffalo Prairie, informed us that he intended this season to sow an acre of Millet, to be cut for hay, by way of experiment, and Mr. C. G. Taylor of Pleasant Ridge, proposed to try an acre of Chinese sugar cane, for the same purpose. We shall be glad to hear the result of both these experiments. But we doubt not some variety of grass will be found, which will do well on the prairies, and probably a mixture of several kinds will be found best for both meadows and pastures.

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Winegar's Water Elevator.—Dr Kennicott, one of the editors of the *Prairie Farmer*, has one of these Elevators, figured and described in the Co. Gent., vol. ix, p. 272, in operation. He says: "We ought, perhaps, have noticed this apparatus sooner, but wished to test it fully before doing so; and we now invite those desiring a cheap and reliable means of raising water from deep wells, to call and see the thing at work in ours. A child of ten years old can turn it easily, and every revolution of the winch raises the three gallon bucket about two feet, until it strikes the trigger and delivers its load without effort."

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Clover Hay for Sheep—"According to our somewhat extended experience there is no hay equal to well made clover, both red and white, for feeding sheep."—Lt. Gov. Brown.

Cutting Fodder for Horses and Cattle.

Messrs. Editors—In the Country Gentleman of Aug. 13, page 108, I notice an inquiry "as to the economy of cutting hay, straw, stalks, &c., for farm stock."

I have never practiced cutting feed for any other stock but horses; and on the economy of this I feel pretty well posted. I keep but two horses, and keep them for all work. There is scarcely a day in the year but that one of them, and frequently both are in the harness. For the last five years I have constantly fed them with cut hay or straw, and am satisfied that one-fourth at least is saved in the expense of keeping by this process.

They are stabled mostly throughout the year, and the hay that they would pull out of the manger, tread under foot and waste, (if kept upon uncut hay with the addition of twelve quarts of oats per day) would keep them in better condition if cut fine, wet, and the equivalent of the twelve quarts of oats in meal mixed with the wet cut hay. There is no waste in cut feed; all is eaten up clean, and with an apparent relish that is not often seen in feeding whole hay. Whenever I have bright oat straw, cut rather green, and well cured, it is used for horse feed instead of hay, and proves a good substitute, unless the horses are working very hard, when good hay should be cut for them.

The best kind of meal to mix with cut feed for horses, is three-fourths corn and one-fourth rye, mixed before grinding; the rye is of a sticky nature, and causes the meal to adhere more closely to the cut hay or straw when wet; and six quarts of this meal per day, with a small quantity of good hay or bright clean straw, is sufficient to keep a horse of ordinary size in good condition, unless when put to very severe service, and then a quarter to a third more should be added. In summer a little fine salt should be sprinkled into the mixing trough every day to prevent its souring, and in winter, or in the coldest weather, warm water should be used in wetting the feed.

There is another advantage in keeping horses in this manner. Since the horse-rake has come into general use, our hay is more foul and dusty than when raked by hand, and horses are much more liable to a cough, and eventually wind-broken, than formerly, and keeping upon wet feed prevents all this. One of my horses coughed badly, breathed hard, and had all the symptoms of what is called the heaves when I commenced cutting the feed, but these indications of disease have long since disappeared, and though 26 years old, he will do as much work as he could fourteen years ago when I became his owner.

As to the utility of cutting feed for other farm stock, for cattle and sheep, I can say nothing about it, for I have had no experience therein. One thing, however, seems to be against it; neither cattle or sheep like *wet* feed. In a wet time in the winter, if good hay gets wet they will eat but very sparingly of it; they will waste more than they will eat. That their tastes and appetites might be trained to like it, if cut fine and meal mixed with it, I think very probable.

If your correspondent means to inquire whether it is economy to cut hay and other fodder for stock to feed in a dry state, and without mixing meal with it, though, as I have just remarked, I do not, for want of experience, feel competent to give an opinion, yet I cannot but entertain strong doubts of its paying for the extra labor and cost. J. W. Colburn. *Springfield, Vt.*

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Kohl Rabi.—E. B. T., *Fort Miller.* You will find an answer to your inquiry in your March Cultivator for this year, p. 95.

Scours in Calves, Cows, or Cattle.

"A Subscriber in Michigan" wishes to know why his neat stock should be troubled with looseness of the bowels this season more than usual, and also what method he could adopt in the management of them with the greatest prospect of success. His cows, he states, give but a scanty mess of milk, his cattle seem easily put out of breath, and are loggy at work, and two calves are getting worse ever since the last of May.

Without some knowledge of the pastures on which the animals feed, of the kind of water they drink, and the amount of salt with which they are supplied, it must be obvious that we are not in possession of *data* sufficient for the formation of a correct judgment as to the *cause* of the trouble in this case. This season the grass must be flashy, or more than usually succulent, from the unusual coldness and wetness which has prevailed in Michigan and most other states; and this condition of the feed may contribute a good deal towards producing the trouble complained of, or be the sole cause thereof. Then, again, there may be some peculiarity about the water, which may have something to do with it. We have known springs and wells so abundant in saline matter as to act on both human and brute animals as a cathartic or laxative, according to the quantity drank. Then, again, a too liberal use of salt may have something to do in producing the disease. Cold, wet nights, of which there have been many this summer would also aggravate complaints of this kind, and might even of themselves be sufficient to produce them in a calf that was tender, delicate, or not supplied with sufficiently nourishing food. It is certainly poor economy to stint a calf, especially one of an improved breed, as is often done, by substituting skimmed milk, hay tea, slops, &c., for the food which is provided for them by nature—the best nurse and raiser of young creatures. Then again, the digestive organs of some calves seem so tender as to be irritated by bran, corn meal, and other things of this kind which are sometimes used to make skimmed milk, teas and slops, a little more nourishing.

Let all these things be considered and investigated, and probably some light may be obtained as to the cause, or combination of causes, producing the disease. And this is highly important, or we might say, absolutely necessary, for very little can be done towards the *cure* of a disease until the *cause*, or combination of causes, producing it is ascertained. The *first step* towards a cure is the removal or abatement of the cause or causes producing or keeping up a disease.

One of the calves being three-quarters Shorthorn, and "very valuable," should be taken from pasture and put under cover. This will prevent the aggravation of the disease which flashy grass, and cold nights, and heavy dews are quite likely to produce, and may be all that is needed. If the scouring should not subside in a day or two after housing this calf, let the milk be scalded or boiled and thickened more or less with wheaten flour. Give no bran, corn-meal, nor oil-cake Should the scouring still continue, give the calf a teaspoonful of prepared chalk, a teaspoonful of catechu, a half of a teaspoonful of ginger, and a teaspoonful of laudanum, or three grains of opium in some thick gruel or porridge three times a day until the disease abates. Give less and less of this medicine as the scouring becomes less. Carefully guard against arresting the disease quite suddenly, as it is much safer and better every way to have it checked gradually.

By the help of the above hints we think any person of good judgment, or having a tact for nursing, may be enabled to cure a not uncommon disease in calves.

Cows and cattle may be treated in a somewhat similar manner. First of all it is necessary to discover and withdraw all irritating causes, such as have been named. If the pasture is on low or wet land, a change to an upland pasture may go far towards abating the complaint. Feeding a little dry hay night and morning, and putting cows and cattle in stable or under cover during night, are among the first things to be done after removing all causes known or suspected. Giving the creatures a good currying may do good by increasing the circulation in the external surface, which will naturally decrease the determination of blood to the internal surface.

If these means should not be sufficient, we would advise the employment of the remedies prescribed for the calf, but in larger doses. Those who have preserved our volume for 1855 will find mention made of cures effected by giving raw eggs, rennet, black pepper, &c. But a mixture of chalk, catechu, opium and ginger, will cure nine of every ten of such complaints.

Leghorn Fowls.

Messrs. Editors—I was much surprised to see my last letter to you published. It was not intended for publication. However, since the fire has started, I would feel better satisfied to give a more clear account of the Leghorn fowl, and after that let them stand upon their own merits.

The Leghorn fowl is a native of Italy—more abundant about the neighborhood of Leghorn than other sections of the country. They have had no attention, as far as I can learn, paid them until quite recently; and even during the past few years there have been but one or two importations of them. I have had them nearly three years, and have not yet known a hen to show the least desire for incubation. They have the same immense comb of the Spanish, with the white ear-lobe, but not a white face. Their plumage varies but little, being either white or Dominique—occasionally, as with birds of every other variety, even with the most careful breeding, they show another color; such a thing, however, is of rare occurrence. Their legs invariably yellow. They lay when six and eight months old, and, unlike most fowls, have no particular time when they cease to lay; even during their moult they lay; and such a thing as a hen ceasing for two weeks at a time during any part of the year to lay, is something I have never known. As fowls they are hardy—as chickens *unusually* hardy, and as an ornament not to be excelled in the way of poultry. In size they are about equal to the Bolton Gray or Creole—perhaps a little larger. As birds for the table, they are equal to any of the fowl tribe; their flesh juicy and tender,—and I might add that, like the Dorkings, they fat earlier and younger than most varieties of fowls. As keepers they will rank well—certainly eating as little and looking as well as any other members of the poultry yard.

I will conclude these remarks by copying from my poultry-book, in which I keep a strict account of the doings of my fowls, the work performed from the first day of April to the 30th day of June inclusive. Keeping always ten hens in each pen, with sometimes one cock and sometimes more, according as I thought best—feeding the occupants of each pen alike, and as nearly as possible at the same time. The time stated is 91 days—the

Dorkings (Gray)	laid,	428 eggs.
Silver Polands	"	545 "
Golden Polands	"	548 "
Black Spanish	"	622 "
Leghorns	"	831 "

Now, gentlemen, I have given you an account of my fowls as truthfully as I can. I have kept and are keeping my poultry-yards entirely for amusement—not for money making. If for the latter, I assure you I would be most sadly disappointed. Robert W. Pearsall. *Harlem, N. Y.*

N. B. I enclose you a letter, which I received on Monday from an entire stranger, with which you can do as you please. It will show that others think as highly of the Leghorns as I do. R. W. P.

From the letter referred to, we make the following extract:

R. W. Pearsall, Esq.—Reading this morning your letter to the "Country Gentleman," I am induced to open a correspondence with you in regard to the Leghorn fowls. I am an admirer of good fowls, and have taken some pains to experiment with the same, and concur with you in saying that the Leghorns are by far superior to all others I ever knew anything about.

I wintered six pullets. I got the first egg from them Nov. 12. March 29 I added four to the number, and up to the first of August received from them 1245 eggs. I have taken no extra pains with them. One of my hens has been in this country upwards of four years, and has not wished to set yet. She lays steadily, and her eggs hatch well. My cousin brought mine from Leghorn. J. L. D. *Norwich, Conn.*

We acknowledge the receipt of a pair of white Leghorns fowls from Mr. Robert Pearsall of Harlem, N. Y. The birds are this summer's chicks, so that it is impossible to say what their weight will be; but judging from the size of their legs, the size of their combs and wattles, and their general appearance, we think they will fall considerably short of the weight of the true Spanish. They are entirely white, with yellow legs, scarlet combs and wattles, and reddish faces. They are trim built, sprightly and active, and from Mr. Pearsall's statement, will no doubt prove to be good layers. Mr. Pearsall has our sincere thanks for these fowls. We will give them good fare, carefully note their development, and report the result to our readers at a future day.

Apples for Stock.

Messrs. Editors — What is your opinion of the value of sweet apples for stock feeding, and what varieties are the best for this purpose? Which is the best season for transplanting fruit trees, spring or autumn? A Subscriber. *Shepherdsville, Ky.*

Sweet apples are of great value in feeding almost any kind of farm animals. Hogs will fatten rapidly on them, as well as on the richer varieties if not sweet. Cows, if not over-fed with them at the start, and care is used to cut or mash the apples so as not to choke them, will increase in milk and improve in condition. Apples are an excellent succulent food for horses in winter. Any varieties of sweet apples that bear abundantly, will answer the purpose. Unfortunately, but little attention has been given to varieties for feeding domestic animals exclusively. Hardiness, thriftiness, and great bearing qualities, are the main requisites. For early feeding, probably the *Hightop* or *Summer Sweet*, of the west, may prove one of the best. There are several autumn sorts, at least worthy of trial, among which are the following:—*Coolies' Sweet* is a fine grower, and a very productive New-Jersey variety; *Jersey Sweet* is also very productive, but the tree is less vigorous, and said to be not entirely hardy at the west; *Munson Sweeting* and *Haskell Sweet*, are both productive and of excellent quality, but not yet much tried west of New-York; the *Pumpkin Sweet* may prove a good autumn sort for this purpose. The *Sweet Pearmain* is said to succeed well at the west, and may be valuable for late fall and winter feeding. The same remark will apply to the *Sweet Romanite*, a western variety. The *Wing Sweeting*, although not large, is very productive at the east, and keeps well—if as much so at the west it would be valuable. The *Green Sweet* is hardy and productive, and keeps into spring.

The American Butter Worker.

AN ANSWER TO AN INQUIRY.

Messrs. Tucker & Son—I noticed several weeks ago, an inquiry by a farmer's wife, for a butter worker, which had been noticed in the Co. Gent., doubtless referring to the American Butter Worker, a cut and description of which we furnished you, and which may be found in the Nov. No. of the Cult. for 1856, and in No. 17, of Vol. 8, of Co. Gent., 1856. We thought we would not answer the inquiry, as we do not expect to do a retail business at selling workers. We procured the right for this State and the six Eastern States, and we intended only to manufacture enough to supply those who purchase of us a right to manufacture, as they all need a model, and a few incidental orders for them. But as many orders came in for workers, and circulars, which we send gratis, we have managed to fill all orders by obtaining workers of those to whom we had sold a right. This we shall continue to do for the present.

Your inquirer asks if the workers have any real merit, and if they have come into general use. They really possess all the merit that can be expected of any machine for working butter, as they are very efficient in every respect, and as the leverage in working is very powerful, hard butter can be readily worked with them.

They have not come into general use as yet, because it is only about a year since they were introduced. But they all perform very satisfactorily as a great labor-saving machine, and there is only one drawback to hinder their universal introduction, and that is, they are machines for females, generally. When a man has the charge of the butter in a large dairy, workers are readily disposed of; but when a female works the butter, there are a hundred excuses for not purchasing a worker, which are usually all summed up in the *price* for a worker.

I sell No. 1 workers at the lowest cash cost of the manufacturer, $6; and put but a small profit on Nos. 2 and 3. My agents all assure me, that were there such an efficient machine for the men to work with on the farm, every man would have one immediately. And as there cannot be one half the profit put on these workers, when compared with the profits on the common implements of agriculture, but few manufacturers are willing to keep them on hand for retail. Respectfully yours, S. Edwards Todd. *Lake Ridge, Tompkins Co, N. Y.*

Lice on Cabbage.

Editors Co. Gent.—In answer to inquiries in your last No., allow me to say that soap suds in which clothes have been washed, poured over the cabbage when cool, with a watering pot or otherwise, once a week or oftener, will not only destroy lice and worms, but will greatly facilitate their growth. This I have ascertained by many year's experience. L. L. W. *Clear Branch, Va.*

Blue Hydrangeas.

A writer in a late number of the *Gardener's Chronicle* says, speaking of Blue Hydrangeas, "All your correspondent has to do is to mix some iron-filings, or perhaps better still, iron scale from a blacksmith's forge, in the earth he pots his Hydrangeas in, to obtain the blue required."

Notes in Albany County.

A population mainly of Dutch extraction and habits; a soil bearing a remarkable resemblance to the "Pine Barrens" of the South; a Patroon, or "lord of the manor," like an egre in the story books, and a tenantry of the most decided anti-rent and tar-and-feathering proclivities,—with many persons in other parts of the State and country, these are the characteristics by which Albany county is supposed to be peculiarly distinguished! One who winds his way out of the city on the railroad leading west, and judges only from the wildness and infertility of what he sees, together with the veracious effusions of the newspaper that may have fallen into his hands—will not come to such a conclusion, it may be, without some appearance of reason. But let him join us behind a pair of horses intelligently directed, and we should hope to give him a better and truer view, and to win his admiration and approval, however fastidious, for much that he should witness between this and the Helderbergs.

In more than one direction from the city, our friend would find a formation and soil which must repay the labors of skillful husbandry; a diversified surface occasionally presenting as fine an agricultural prospect as is often met with; a growing tendency to improvements, manifesting itself in neater fences and more tasteful dwellings, in better and larger barns, and in stock marked more or less distinctly by the merits of well bred progenitors. He should be introduced to some substantial, enterprising and reading farmers, whose lands, although cultivated while the Indians were still almost their neighbors, are yet unexhausted, and in numerous instances now being renovated and improved by the production of grass, the feeding of stock, and the use and economy of manures.

Near the end of last month we enjoyed a very pleasant drive to the farm of the President of the County Ag. Society, Capt. HILTON; stopping on our way at the City Alms House, whose grounds invite a call just after leaving the city pavements, on one's way toward New-Scotland. The present active Superintendent, Mr. WM. HURST, has done much to improve the appearance, increase the comforts, and add to the resources of the establishment. He has an excellent gardener, and a cozy little hot-house, and the plants both in it and out of it, bear evident marks of intelligent and industrious care. The garden is a great addition to the institution, and the attention paid to keeping it and the remainder of the grounds in good order, is worthy of high commendation.

Among the cattle kept at the Alms House are a number of head of Short Horns of superior merit, including the bulls "Balconi" and "Damon," both of which we think have been heretofore noticed in our columns. The stock of pigs, reaching some 150 in number, are also very nice, including Essex, Berkshires, Cheshires and Suffolks. The poultry department is worthy of notice. We regretted to be unable to spend more time in looking over the farm, which comprises 216 acres. About seven miles of tile drains have been laid, which will doubtless prove of permanent advantage. The inmates of the institution now number 360, of whom 104 are in the insane department. The buildings, both for dwelling and farm purposes, have been much improved within a year or two past, and the whole is well worthy of more than a mere passing call.

From thence over a plank road to Capt. HILTON'S, one is carried most of the way through a good farming country, some of which bears evidence of improved treatment. Our friend has 330 acres, beautifully situated, almost the whole of it being in view from his dwelling, and naturally well drained. His father settled upon the place fifty years ago, and those parts of it that have been in cultivation for the past forty years, now yield, as we were informed, quite as well, if not better than ever, owing to a better system of cultivation. Capt. H. has this year 70 acres in rye, 30 in oats, 25 in corn and potatoes, 80 in meadow, 60 in pasture, and the balance under wood. There are perhaps a thousand apple trees on the farm. The soil is a gravelly loam, but in many parts quite free from stone, and will grow a crop of 30 bushels of rye, 50 or 60 of oats, 40 to 50 of corn, and two tons and a half of grass to the acre, in a good season, without its being considered an extraordinary yield.

Capt. Hilton's system of farming consists in having more pasture than his stock need, enriching his land by their manure, as well as by the surplus vegetation it produces, and leaving in all his crops and calculations a margin for the benefit of the soil, instead of "skinning" it as closely as possible each succeeding year. He makes large quantities of manure and buys some fifteen tons of plaster annually, while he can sell a hundred tons of hay, and keep up his stock and farm in good condition. He has used one of Ketchum's mowers for three years, and it has this season given him even better satisfaction than ever before. Wheat used to be a staple crop both with him and his neighbors until about fifteen years ago, when the midge began to render it so very uncertain, that it was entirely given up—rye, which never misses, having now taken its place. The present season, rye, oats and grass all promise an abundant yield.

The stock on the place includes ten head of Devons, from the best herds or importations to be had, and affording an excellent basis for future operations. Among them are the cows "Edith," "Nonpariel" and "Moss Rose" imported, the first by Col. Morris and the last two by C. S. Wainwright, Esq.; the fine bull "Empire" from the Hurlbut importations; "Master Quarterly" and another promising young animal "Albany," bred on the place. The other cows are Volga, Empress, Ruth and Rouge. A pair of beautiful working oxen deserve especial notice. Capt. H. has about fifty head of sheep—a cross between the Bakewell and South Downs, which he finds pay well for feeding.

This farm affords a fair example of the best class of farms in Albany county. There are others,—to several of which we have long been promising ourselves a visit, perhaps equally worthy of notice. Their owners are all practical men, who depend on their land for their living, and find that well directed labor in tilling it is sufficiently "profitable" to meet all their expectations. The enterprise they have shown is of service to their neighbors, and we trust they will have proof that it is appreciated, in the support extended to their efforts to improve the stock of the county, and extend the usefulness and increase the variety of its shows.

A Princely Prairie Farm.

We find an account of a visit to the farm of Mr. M. L. SULLIVANT, in Champaign county, Ill., in the *Agricultural Press*—from which it appears that Mr. S, who was for a long time, we believe, the most extensive farmer in Ohio, commenced operations in the spring of 1856, on a 20,000 acre prairie farm, and that he has already about 7,000 acres broken up, 3,000 of which are in corn, and the remainder in wheat, barley, oats, flax, &c. His wheat crop is estimated at 15,000 bushels, and his corn crop, estimated at only forty bushels per acre, would amount to 120,000 bushels. Over one hundred hands were employed on this farm, with one hundred and twenty-five yoke of oxen and about fifty horses. Beside this 20,000 acre farm, Mr. Sullivant has another, consisting of "some *forty thousand acres*," upon which he will commence operations as soon as he gets the one upon which he is now at work under culture.

Notices from Foreign Agricultural Journals.

TRANSLATED FOR THE CO. GENT., BY PROF. S. W. JOHNSON.

Comparative Nutritive Value of the Chinese and Common Potato.

Dr. Grouven analyzed a tuber of the Dioscorea batatas which was successfully grown last year in the botanical garden at Bonn.* He compares its composition with that of a white potato which he cultivated in 1854 under the influence of various fertilizers, and concludes from his results that the Chinese potato, as it grows in the climate of Bonn, is inferior to, and cannot replace the common potato. The analyses are as follow :

	Chinese Potato.	White Potato.	
		with min. manure.	with nitrogenous man.
Water,	83.00	76.40	75.20
Starch,	8.00	14.91	15.58
Nitrogenous matters,	1.13	2.17	3.60
Dextrine & mucilage,	1 92	2.34	1.29
Sugar,	0.72	0.15	0.11
Fat,	0.32	0.29	0.31
Extractive matters,	3.11	1.70	1.99
Woody fibre,	0.70	0.99	1.03
Ash,	1.10	1.00	0.90
	100.00	100.00	100.00

Solubility of Glass and of Soil in Water.

Pelouze has found that while glass vessels are attacked by cold or even by boiling water, with exceeding slowness, pounded glass is quite easily decomposed. Water was boiled for five days in a glass flask holding half a pint, and the vessel lost in weight scarcely two grains. The neck of the flask was then taken off, finely pulverised and boiled with water for the same time. Nearly one third of it was decomposed.

The glass of a bottle in which water might, have been kept for years without action on it, when pulverized and left for only a few minutes in contact with cold water, lost two-thirds per cent. of its weight, so much being dissolved by the water.

What is the agricultural value of these facts? The compound minerals which are the chief ingredients of the granite rocks, and accordingly of the soils of nearly our whole country, are similar or analogous in composition to glass. Like it, they (felspar, mica, hornblend, augite,) are silicates of lime, magnesia, alumina, potash, soda, and iron, and like it they are decomposed by water. The small quantities of mineral matters thus unlocked from their combinations, form an essential part of the food of the plants. If these bodies (including also, but in relatively smaller quantities, phosphoric and sulphuric acids) are continuously dissolved as fast as they are needed by vegetation,—there (if its texture be good) the soil is fertile. Now the readiness with which these minerals are dissolved is increased by pulverization, to the same wonderful degree as is the case with glass. Actual experiments have demonstrated this, and hence we see the value of pulverizing the soil. It is not to be expected that we can ever actually grind up the soil, or subject it to so much rubbing as would amount to a pulverization ; but it only needs a small relative extension of surface to increase the solubility of the soil so much as would be very perceptible in the crops. But the most important bearing of the fact we are considering, is in serving to explain the almost inexhaustible fertility of some soils. The soils of the Scioto Valley, Ohio, and others in Kentucky, having the same origin and qualities, have yielded the heaviest crops for years without manure. One cause of this productiveness is their exceeding fineness. So the soils of the Bannat, in Hungary, and the immense grain fields of Southern Russia, possess the same characteristics. We know that the principal cause of the great efficacy of superphosphate of lime over mere bone-dust, consists in its exceeding fineness.

The reason why pulverization increases the solubility of glass or of soils, lies simply in the increase of surface. A hard lump of sugar may take hours to dissolve, when as much pulverized sugar disappears in a minute. We see then that by making manures fine, we increase their action, and by pulverizing the soil we get "more land to the acre."

Sorghum in high Latitudes.

In former "Notices" have been given the results of the successful cultivation of this plant, both as a source of sugar and as a means of forage, in the warm climate of southern France, as well as its failure to furnish sugar when raised in the climate of Stuttgardt, in central Germany

Rohde, at Eldena in Pomerania, north Germany, has made some very thorough trials of the feeding value of sorghum compared with maize. He found that in that climate an acre of ground produced but about one-third as much green fodder, when in sorghum as when in maize.

His trials, and others made at Berlin, also confirm those carried out at Stuttgardt, viz ; that in cold climates the sorghum cannot be profitably grown for the sugar it yields.

Management of Barn-yard Manure.

It appears that along the shores of the Baltic, the practice of spreading manure upon the fields sometime before plowing it in, has long been in favor. Dr. Segnitz has made some comparative trials at Eldena, which demonstrate the excellence of the practice.

Stoeckhardt at Tharand, and Walz, Director of the Agricultural Academy at Hohenheim, near Stuttgardt, have also conducted exact experiments with the same results.

Stoeckhardt determined by analysis the loss of ammonia which manure may undergo, and found it very trifling. This accords with the results of Dr. Voelcker, and strongly confirms the experience of Mr. Johnston of Geneva, and Mr. Norton of Farmington.

With such concurring testimony, from the side of both practice and science, there is every reason why farmers should multiply experiments ; for a score of well conducted trials would go very far towards determining under what circumstances surface manuring is best, and when, if ever, it is inferior to the other plans of application.

Potato Boiler.

Eds. Co. Gent.—Many years ago I constructed a potato boiler, to which, in cheapness and convenience, I have not since met any thing equal, particularly when only a small business is done.

In its general outline it is an oblong box with a sheet iron bottom, set over a confined fire.

1. Procure a sheet of good Russia stove-pipe Iron. It may be five feet long and perhaps thirty inches wide, (more or less.) Make a strong pine box, whose outside dimensions are the same as your sheet iron, and about two feet deep. Punch holes in your iron with a steel punch, laying the iron on some smooth, hard, wooden surface, such as the end of a log. These holes should be about one-half inch apart, in two rows, the rows being about one-third of an inch apart, and the holes in one row alternating with those in the other. Turn your box bottom upwards, and nail on the iron with small shingle nails, first putting a piece of cloth list on the edge of the box to make the work tight. The edge of the box should be of good timber, otherwise the nails driven in two rows thus, will be in danger of splitting it. Now make a cover to your box in the form of

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* Bonn is on the Rhine, near the northern limits of the wine region in Germany.

a battened door. The whole may be done with unplaned boards. Your box is now done.

2. Now build two parallel walls of stone or brick, on dry solid ground, near your hog pen, or in the hog house, if you have one. They may penetrate a little into the ground if you wish to build quite durably. The height should be about from eight to ten inches, and the space between them eight inches less than the width of your box, and the length about two feet more. Your wall being made, spread a little soft mortar upon the wall and set your box upon the mortar. You will see now that your box laps over on each side of the fire chamber four inches, upon the wall. This is for the purpose of guarding the sides of your box, where the sheet iron is nailed on, from access to the fire. The box should not reach quite to the front end of the wall, a few inches being left for a long narrow stone to guard the front end of the box from the fire which sometimes will flash up from the mouth of the fire chamber. At the rear end a similar stone may be placed, beyond which a stove pipe may be inserted, or a regular chimney may and should be built if the boiler is placed inside of a building.

It is obvious that a boiler thus constructed, with the fire playing directly upon its sheet iron bottom, will feel the influence of fire directly, and take but a small amount of wood.

It will be seen, however, that such a sheet iron bottom will not bear a hard strain. Accordingly, before it is charged with potatoes, a rack must be made, by taking two small bed pieces, say two by two inches, made of small scantling or plank; those should be the length of the inside of the box. Across them, at about one-half inch apart, nail slats, say one inch square and of the length of the width of the box, on the inside. Let this rack be laid in the bottom of the box. It will be seen that the bed pieces of the rack lie upon the wall, and so save the bottom of the box from strain. The box may now be filled with potatoes, beets, cut pumpkins, or whatever you wish to boil; before kindling your fire, some six or eight quarts of water may be poured in. When the fire is applied, this water will steam up and condense again, until the whole mass is boiling hot.

When your potatoes are cooked, a point readily determined by raising the cover, shovel them out into your mash tubs, mixing them with meal if you wish. If potatoes alone were boiled, you may draw off the black water left in the bottom by a plug at one corner. If pumpkins or sweet roots of any sort had been boiled alone, or with the potatoes, this water may be dipped out into the mash tub.

If desirable, the boiler may be immediately filled a second time, when being hot it will boil with much less wood. If not used again at once, a little water should be left in it, to counteract the effect of the remaining heat upon your box.

The first time this boiler is used it will leak at little at the bottom. Unless you make an expensive box, it may always lose a little steam at the corners. Should this boiler stand out of doors, it should have a shed of boards built over it, since the wind will diminish the effect of your fire, and the frosts of winter injure your wall. By putting two pieces of sheet-iron together a box of twice the above size may be made. A division wall could also be made through the fire-chamber, to support the larger bottom in the center.

A box made as above, costs about two dollars. The mason work almost any farmer may do with his own hands. Such a box will last, it is probable, five or six years, when the sheet-iron will need renewing. Sheet-iron burns out very slowly when in contact with water, and always kept within a boiling heat. If any one can devise another potato boiler of the same capacity, speed of action, and cheapness, and be used with the same small amount of wood, I would like to see it and "own beat." I have seen and used numerous potato boilers, some of them iron kettles set in arches, others small iron boilers connected with boxes for holding the food to be steamed, but I have seen nothing so cheap and convenient as the foregoing. C. E. Goodrich. *Utica.*

Steam Plowing.

Mr. H. F. French has had an opportunity of witnessing several steam plows at work, during the recent exhibition of the Royal Ag. Society of England, and also the operations of a steam digger or grubber in France. As his opinion of these novel implements may be of interest or value to those of our readers who have large prairie farms, or farms otherwise fit for the employment of steam plows thereon, we give the substance of it, and a sketch of the observations on which it appears to have been founded.

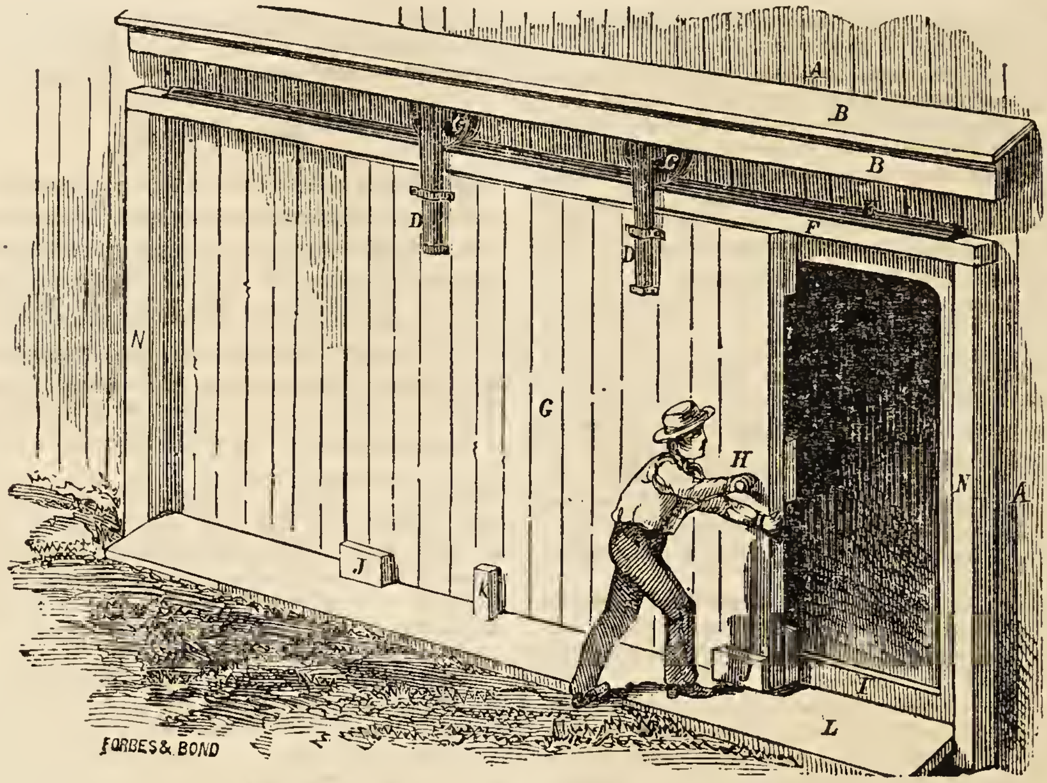
Fowler's steam plow is worked by a stationary engine, at the end of the land, and though it is said by Mr. F. to work well, it seems to him objectionable because of this stationariness of the engine, which involves the use of ropes twice, at least, the length of the furrow. Thus, for a furrow eighty rods in length, a half a mile of rope must be constantly used.

There was only one steam plow on exhibition, which was worked by a locomotive engine. This carried six plows, or cut six furrows as it went, walked about in a very intelligent sort of a way, turned readily at the end of the furrow, and was, in this respect at least, superior to the plows with stationary engines, that it did not require to be drawn about from field to field by horses, and to have tenders with coal and water,—also drawn by horses,—waiting upon it, but was of itself able to march from field to field, drawing its own tender, supplied with coal and water, along with it. It is claimed that the same engine will draw loads of any kind on a road, haul in hay or grain, and do almost all kinds of farm-work as well as horses.

In France, as we have previously stated, Mr. French had an opportunity of witnessing a steam engine "rolling its broad wheels on the ground, like a wagon, and digging or spading the soil as it passed along." His impression, so far as these opportunities for observation seem to warrant, is in favor of a locomotive engine in preference of a stationary one, and of spading instead of plowing, as being a more perfect operation. He is also of the opinion that neither of the machines for plowing seen in England, will accomplish as much work at as small an expense as horses, and that until steam can underbid horse power in cost, the latter will be preferred as more simple and more convenient.

Remedy for Worms on Hop-Vines.

Messrs. Editors—Noticing in the Country Gentleman of the 13th Aug., an inquiry into the nature of the various worms which infest the hop-vine, and a remedy for their destruction, I give you an experiment which I tried last spring, and thus far has proved quite effectual. My hop-vines are trained, and run upon lattice work frames from the ground. Last spring, before the vines made their appearance, I prepared a whitewash with a strong decoction of corrosive sublimate, and gave them a thorough washing with the mixture; have examined the vines constantly, and have not been able thus far to discover a single worm. For the last two or three seasons have been very much annoyed with them. My vines appear much more thrifty, and more prolific, and a decided improvement in their appearance. The remedy is so simple and so easily tried, that it is worthy the attention of a trial. I shall continue it from year to year, as long as I meet with the same results. H. A. J. *Cincinnati, O.*



Morse's Patent Self-adjusting Door Hangers.

The above engraving shows a new mode of constructing and hanging doors on barns and out-buildings, for which the patentee claims very great advantages over any mode of hanging doors ever before offered to the public. His advertisement will be found on another page of this paper.

Experiment in Fattening Pigs.

Messrs. Editors—As accurate and carefully conducted experiments in fattening pork, are rare, and as the subject is often discussed among farmers, as to the "profit or loss," of fattening, without coming to any definite conclusion, I am prompted to relate a few facts which came to my observation during the past year, with a view of influencing others to try similar experiments, and communicate the result for the benefit of their brother farmers.

Mr. T. P. Lyon, an enterprising farmer of Genoa, Cayuga Co., having nine shoats which he wished to to dispose of at three months old, put them into market at six cents per lb., and being offered but five, concluded to try the experiment of fattening, with a view of obtaining what *he* considered their true value. That there might be no *guess-work* in the matter, each pig was carefully weighed, and their combined weight was 630 lbs.

On the first day of January they were put into a warm pen, and fed scalded meal, three-quarters corn, and one-quarter oats and buckwheat, until the 10th day of April, at which time they had consumed 3,510 lbs. of meal. They were then slaughtered, weighing after being dressed, 1430 lbs., lard 43 lbs. rendered.

Allowing the price Mr L. was offered at the time he commenced feeding, and the market price for the meal which was $1.25 per cwt., we find the account to stand thus:

Shoats. 630 lbs. at 5 cts. per lb.,	$31.50
Meal, 3510 lbs. at $1.25 per cwt.,	43.87
	$75.37
Pork sold when dressed, 1430 lbs., at 9 cts.,	$128.70
Lard sold, 43 lbs., at 12½ cts.,	5.37½
	$134.37½
Deduct shoats and meal,	75.37
Profit,	$58.70

A very fair profit for the capital invested.. D. C.

Experiment with Manure.

Messrs. Editors—I wish to communicate through your paper, the results of an experiment tried by a friend of mine, at my suggestion, three summers ago, upon the raising of corn, with the view of testing the comparative merits of different kinds of manure. I had stated in his presence that human excrement was equal to the best guano, to apply to any crop, on any soil, and in any climate, and that the excrement of any family all saved and properly applied, would produce more grain than the family would need for consumption.

To test the question, he tried the following experiment. He prepared his cornfield all alike, by the use of the plow and harrow. One-third of the field he manured in the hill with human excrement, taken from the vault of the privy. One-third, the same way with guano. The last third, with manure taken from under a shed, with the urine saved with the solid. The absorbents put into the family vault to absorb the urine, and to render the solid more conveniently worked, was swamp muck. Whilst growing, that manured with guano appeared the rankest, and of the darkest color. He accordingly supposed that part of the field would give the greatest yield. But on harvesting the portions separate, he found that that portion manured with human excrement, gave the greatest yield both in the bushels of ears and of actual weight of shelled corn.

The largest corn that I ever saw growing for a small kind of corn, was treated with ashes that had been prepared in the following manner: The ashes were put into barrels as they were taken up through the year. Into those barrels the chambers were emptied from day to day, so that the ashes were kept well saturated with urine until they were used. This compost was applied in the hill at the time of planting, about the same quantity that is generally used of guano.
J. L. Edgerton.

The U. S. Ag Society's Meeting at Louisville.

The Fifth Exhibition of the United States Agricultural Society was opened at Louisville, Ky., on Monday of last week (Aug. 31.) Although unable to be present as anticipated, we are indebted to correspondents for data from which to furnish the following account of the first three days' proceedings, and another week we shall probably be able to give, together with the conclusion, letters from one or two eye-witnesses, which will enable our readers to form some accurate comparisons between the present show and those that have preceded it.

The Grounds, as it appears, were fitted up with a Manufacturers Tent, Implement and Floral Halls, and the usual Tents of the President and Guests, in addition to the extensive Amphitheatre, belonging to the South Western Association, as well as saloons for ladies, for refreshments, &c. A mile track was also added to meet the usual requirements of the horses. The exhibition was "opened" by an address from President Wilder, who was escorted in procession from the city, and introduced at the amphitheatre to a large assemblage, by Gibson Mallory, Esq , President of the S. W. Ag. Asssociation. Mr. W. simply and appropriately welcomed the visitors and referred to the objects of the occasion.

The First Day the trials of speed upon the track were the center of interest. In the trial of stallions over five years old, the $100 Prize was awarded to "Green Mountain Morgan," (J. B. Crippen, Coldwater, Mich.) sired by old Black Hawk at Bridport, Vt.—time, 2:58—and the 2d Premium to "Young Hamiltonian," (J. L. Doty, Vermont,)—time, 3:08—both 7 years old. Four other horses were competing, respectively owned by Messrs. McNairy, Tennessee; Markham, Canada; Frost, Illinois, and Wilson of Ohio. In the ring of Four-year-old Stallions, one of the two competitors was ruled out and the prize went to E. G. Thomas' "Bud Blackhawk." In the ring under four years old, there were three competitors—prizes awarded to Mr. W. J. Bradley, and Dr. Spalding of Kentucky. In the several rings of Mares and Geldings, there were nine competitors, all Kentucky horses with the exception of two, respectively from New-Jersey and Michigan.

The Second Day cattle were shown, including the classes specified below, on which premiums were awarded as follow:

DURHAM BULLS.

Judges.—Samuel Thorne, Washington Hollow, N. Y.; Lewis Sanders, Ky.; Sam'l D. Martin, Winchester. Ky.; Jacob Pierce. South Charleston, O.; Wm. T. Dennis, Richmond, Ind.; Jno. G. Taylor, New Castle, Ky.; Russell W. Morse, Missouri.

Three years and over—1st premium of $100 to R. A. Alexander, Woodford Co., Ky., Sirius -2d. $25, R. G. Corwin, Wayne Co., O., Crusader.

Two years and under three—1st. $50, Chas. T. Garrard, Bourbon Co., Ky.—2d, $25, to Nelson T. Lee, Boyle Co., Ky.

One year and under two—1st, $25, R. A. Alexander—2d, $10, Cragan Johnson, Scott Co., Ky.

DURHAM COWS.

Judges.—Lewis G. Morris. Mt. Fordham, N. Y.; Robert W. Scott. Franklin Co., Ky.; Thos. H. Clay, Fayette Co.. Ky.: Wm. T. Dennis, Richmond, Ind,; Russell W. Morse, Hannibal, Mo.

Three years and over—1st. $100, to R. A. Alexander, Forget-me-not—2d, $25, R. A. Alexander, Dutchess of Athol.

Two years and under three—1st, $50, George M. Bedford, Bourbon Co., Ky., Iranna—2d, $25, Col. S. Meredith, Wayne Co., Ind., Maid of Oak Lane.

One year and under two—1st premium, $25. R. A. Alexander. Mazurka 4th—2d, R. A. Alexander. Mazurka 2d.

Under one year—1st, $25, Col. S. Meredith—2d, $5, S. Meredith, Dolly Madison.

DEVON BULLS.

Judges.--Henry Wager, Rome, N. Y.; C. M. Clark, Springfield, Ohio; Frederick Watts, Carlisle, Pa.; A. J. Anderson, Henderson, Ky.; Benj. Gratz, Lexington, Ky.; John W. Lang. Vassalboro. Maine; Chas. T. Garrard, Bourbon Co., Ky.; W. H. Sotham, Owego, N. Y.

Three years old and over.—1st. $100, Chas A. Ely, Ohio. Duke of Devon.—2d, $50, Paul Wing, Montgomery Co. Ind., Bryan.

Two years and under three.—But one animal was offered, and he was adjudged unworthy the premium.

One year and under two.—1st. Chas. A. Ely, Loraine Co., Ohio, Victory.

Under one year.—1st. Chas. A. Ely, Ohio—2d, Paul Wing, Montgomery Co., Indiana, Archer.

DEVON COWS AND HEIFERS.

Junges.—C. M. Clarke, Springfield, Ohio; Benj. Gratz, Lexington, Ky.; W. H. Sotham, Owego, N. Y.; C. T. Garrard. Bourbon Co., Ky.; C. L. Flint, Boston, Mass.; Jno. S. Herr, Jefferson Co., Ky.

Three years and over.—1st, $100 to C. A. Ely. Ohio, Jenny Lind—2d, $25, to same, for Victoria.

Two years and under three.—1st, $50 C. A. Ely, Ohio, Ida.—2d, $25, to the same, for cow of same name.

Under one year.—1st, $15, Paul Wing. Montgomery Co., Indiana, Lady Jane.—2d, C. A. Ely, Ohio, Ida 3d.

DEVON HERDS.

Judges.—Ben. Gratz, Lexington; C. M. Clark, Springfield, Ohio; C. T. Garrard. Bourbon Co., Ky.; Charles L. Flint, Boston, Mass; W. H. Sotham, Owego, N. Y.

Best Devon Bull and Four Cows.—1st, $100, C. A. Ely, Ohio.—2d, Diploma, Paul Wing, Ind.

FAT BULLOCKS.

Judges — R. Mallory. Oldham Co., Ky.; W. Showe, Ind.; J. Johnston, New-York; T. Paxon, Ohio; E. L. Huffman, Louisville; J. Phillips, Mass.

Five years and upwards—1st, Isaac Shelby. Fayette Co. —2d, George Davidson, Wayne Co., Indiana.

Four years old and under five—1st. James Calloway, Henry Co.—2d, Isaac Shelby, Fayette Co.

Three years and under four—1st, Isaac Shelby, Fayette Co.—2d, J. M. Calloway, Henry Co.

FREE MARTINS, FAT HEIFERS, ETC.

Five years and over—1st, Geo. Davidson, Wayne Co., Ky.—2d, W. L. Waddy, Shelby Co.

Four years and under five—1st, W. R. Estille, Fayette Co., Ky.—2d, Isaac Shelby, Lexington, Ky.

Three years and under four—1st, Isaac Shelby, Lexington, Ky.

In the afternoon several rings of draft stallions and mares, and of saddle geldings were displayed, comprising a considerable and excellent turn-out. The Floral Hall was opened although then not quite completed. Its appearance and the character of the Fruits and Flowers shown for number and variety, are highly spoken of. The structures devoted to machines and implements were scenes of busy competition, and the display in these departments is said to have been large and creditable.

The Third Day, in the morning, further classes of Cattle were shown, also Swine and Sheep. We give the report of the premiums awarded:

HEREFORD BULLS.

Judges—J. M. Brown of Illinois; J. Askew, R. Mallory, Oldham co., Ky.; Col. Jno. Pope. Tenn.; A. Tarleton, Jefferson co., Ky.; J. O'B. Renick, and G. M. Bedford, Bourbon co., Ky.

Three years old and over—1st, to Prince of Wales, John Humphreys, Lorain co., O.—2d, Charles, W. H. Sotham, Owego, N. Y.

Two years and under three—1st, to Fair Boy, of T. Aston, Lorain co., O.

One year and under two—1st, to Ranger, of W. Sotham.

HEREFORD COWS AND HEIFERS.

Judges—As on the previous class.

Three years old and over—1st, to Duchess, of Thomas Aston—2d, to Mayflower to W. H. Sotham.

Two years old and under three—1st, to Princess Royal, of John Humphreys—2d, to Wood Lass, of W. H. Sotham.

One year and under two—1st, to Beauty, of Thos. Aston.

Under one year—1st. to Prudence, W. H. Sotham—2d, to Woodlark, owned by same.

HEREFORD HERD.

One bull and four cows—1st, to W. H. Sotham

AYRSHIRE BULLS.

Junges—R. J. Tarleton, Jefferson co., Ky.; Isaac Askew, Windsor, C. W.; George M. Bedford and J. O'B.

Renick, Bourbon co., Ky.; and Cassius M. Clay, Madison co., Ky.

Over one year—1st, to Home, J. W. Goslee, Jefferson co., Ky.—2d, to R. A. Alexander.

One year and under two—1st, to S. Berryman, Boston, Ky.

AYRSHIRE COWS.

Three years and over—1st, to Queen, of R. A. Alexander—2d, to Arvelvc Lass, owned by the same.

Two years and under three—1st and 2d, to R. A. Alexander.

Under one year—1st, to Tunie, and 2d, to Lilie, both owned by R. A. Alexander.

AYRSHIRE HERD.

Two bulls and four cows—Premium to R. A. Alexander.

HERD—FAT CATTLE.

Fine fat cattle—1st, to Isaac Shelby. Fayette co., Ky.

SWINE—LARGE BREED.

Boars two years and over—1st, to Suffolk, owned by E. & B. Bassett, Milan, Eric co., O.

Sows two years and over—1st, to Lizzie, owned by J. M. MeFerrin, Boyle co., Ky.—2d, to Virginia, owned by Jno. S. Scaton, Jefferson co., Ky.

Sows one year and under—1st, to Princess, owned by Richard Allen, Fayette co., Ky.

Sow and Pigs—1st, to Virginia and two pigs, owned by J. S. Seaton.

SWINE—SMALL BREED.

Boars two years and over—1st, to Richard Allen—2d, to W. W. Young, Jefferson co., Ky.

Pair of Pigs—1st, to E. & B. Bassett.

Sows two years and over—1st, Richard Allen—2d, to Zeb. Ward, Frankfort, Ky.

Sows one year and under two—1st, to Richard Allen—2d, to Zeb. Ward.

SHEEP—COTSWOLD.

Aged Bucks—1st, Monarch, of J. W. Goslee, Jefferson co., Ky.—2d, Success, of Smith Hopkins, Henry co., Ky.

Bucks two years and under three—1st, to R. A. Alexander—2d, to David Ellis, Henry co., Ky.

Ewes over three years—1st, Luke Hopkins, Henry co., Ky.—2d, to Thomas Aston.

Ewes under two years—1st, J. M. Calloway, Smithfield Ky.—2d, J. B. O'Bannon, Jefferson co., Ky.

SHEEP—SOUTHDOWN.

Bucks over three years—1st, to R. A. Alcxander—2d, to C. M. Clay, Madison co., Ky.

Bucks two years and under three—1st, to R. A. Alexander—2d, to Towns & Worthon, Loraine co., O.

Ewes two years and over—1st, R. A. Alexander—2d, Towns & Worthon.

Ewes under two years—1st, R. A. Alexander—2d, Towns & Worthon.

SHEEP—SAXON.

Bucks two years and over—1st, Alex. Black, Greencastle, Ind.

Bucks under two years—1st, Alcx. Black.

Ewes two years and over—1st, John Herr, Jefferson co., Ky.

NOT CLASSIFIED.

Five Fat Wethers—1st, J. M. Calloway, Smithfield, Ky.

Mixed breeds—1st, to R. W. Scott, for Improved Kentucky; 1st for Long-wool Lambs, to Luke Hopkins, Henry co., Ky., and 2d, to J. M. Calloway, Smithfield, Ky.; 1st for lot of Sheep, to J. D. Olcott, Jackson co., Mich.

The show of Horses for general utility took place in the afternood, and the display was very good. The premiums, without exception, were taken by Kentucky horses—we are not informed whether there were any others competing. Floral Hall was the center of great attraction, and the Implements on exhibition or trial, were examined by large numbers of spectators.

The Fourth Day was opened by the exhibition of Alderney Cattle and the Poultry, followed by trotting matches, and a general display of horses in the horse ring, embracing all kinds of horses, which excited universal admiration. The prizes on Jersey Cattle, Poultry, Morino Sheep, extra Horses, &c., were declared.

The Fifth Day was marked by the display of blooded stallions, headed by "Wagner," now 26 years old, famous for having beaten the celebrated Gray Eagle,—saddle horses, ponies, and mules, in each class of which there was a grand display, and in neither of which can Kentucky probably be beaten by any other State in the Union. The premiums on these classes, together with those on working oxen, were awarded, as also those on the Implements and Machines tried at Syracuse, with the exception of Mowers. In relation to these, the President said:

"I regret to state that the committee on mowers have not yet agreed upon the verdict When they do so, the result will be made known through the public press."

The award on Reapers and Combined Reapers and Mowers, was published in our last No., p. 176. Other awards were made as follows:

To Wm. Deering & Co., Albany, first premium for Stationary and for Portable Parallel Hay Presses—a silver medal and diploma for each.

To. H. Robinson, Lafayette Square, N Y., first prize for Grain Cradles—bronze medal.

To Frost, Burke & Co., Springfield, Vt., first prize for Scythe Snaths—bronze medal.

To John Hatch & Cook, New-York, for superior Hay Rakes—certificate of merit.

Seven of Mr. Richard's Arabian Horses were exhibited, and excited the greatest admiration.

The Sixth Day brought the exhibition to a close, and is said to have been the most brilliant of the whole, and a fitting and triumphant finale to the week. The official report says:

"It was appropriately arranged that the concluding scene of the brilliant and splendid exhibition should be a grand cavalcade of all the premium animals. Every one that had taken a cup during the week was introduced into the arena, and passing around, the large assemblage enjoyed the opportunity of witnessing a spectacle that is rarely vouchsafed. We cannot speak in fitting terms of the beauty and style of these animals. Our vocabulary of adjectives is not sufficient to do justice to their varied and admirable qualities."

The remaining premiums were declared, including those on buggy and draft horses, fruits and flowers, farm and miscellaneous products, agricultural implements, &c. Among these we notice the following:

To Rich'd H. Pease, Albany, for best Horse Power for railway threshers—silver medal. In connection with this, the Report says:

"At the trial before the Committee, of endless chain horse power and thrashing machines, the Excelsior Machine, manufactured by Richard H. Pease, of Albany, N. Y., came off successful—they having thrashed the 50 sheaves alloted them in five minutes and eight seconds, while the Emery competing machine occupied six minutes in thrashing the same amount, or nearly 20 per cent. longer than the Excelsior. The thrashing was done by the mere weight of the horses, no harness being used."

To Wheeler, Melick & Co., Albany, for best Thresher and Winnower—diploma.

To Hedges, Free & Co., Cincinnati, for best Sorgho mill—silver medal. And a silver medal to the same, for the best "sugar-making apparatus."

Railway Horse Power—Diploma of commendation, R. H. Pease; commendation, Emery Bros., Albany N. Y. After a most careful examination, the committee were unable to discover that either of these machines had any superiority over the other.

The ceremonies of the week were closed by a "grand banquet," which took place at the Galt House on Saturday evening, and in which over three hundred guests participated. Speeches were made by Col. Wilder, President of the Society, Gov. Morehead, and ex-Govs. Wickliffe and Helme of Kentucky, Mr. Barrett of St. Louis, ex-Secretary Guthrie, Mr. T. L. Davis of Syracuse, Gen. Tilghman of Maryland, Gibson Mallory, Prest. of the Southwestern Ag. and Mech. Association, Mr. Allston of S. C., and several others; and the whole affair seems to have passed off in a most agreeable and satisfactory manner.

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Warts on Cow's Teats.—Will you or any of your contributors state in the "Country Gentleman," a cure for warts on cow's teats? W. A. H.

Notes of a Travelling Farmer—III.

Near Louisville, Ky., Sept. 1, 1857.

Messrs. Tucker & Son—My last was from Cincinnati. I left there on the 28th by railroad for Louisville. When going into the cars at Cincinnati I had the good fortune to meet H. P. Byram of the Valley Farmer. Although it was our first meeting, we were friends at once, and you may rest assured we had a long talk on all modes of farming, which drew others into the conversation.

The land for some time after leaving Cincinnati, is hilly or bluffs as they call them ; still the soil is very rich. Large corn very, and wheat in shock, as usual. Mr. B. pointed out the late residence of the lamented Gen. Harrison. It is nothing more than a plain farm dwelling, which showed plainly that he was as represented, when elected President of the United States, the Farmer of Great Bend. The trees being in full foliage prevented me from seeing his grave, which is on the top of a small bluff or natural mound a little south of the dwelling. This I regretted very much. After passing that memorable place, we crossed the Miami. The appearance of those river flats far surpassed Niagara Falls to my view. The corn is immense. Although we were on what we thought the slowest of the slow trains, I wished when passing Great Bend and the Miami, that they had been *slower by far*. After passing the Miami we came into Indiana, and travelled some 100 miles through that State to Jeffersonville, opposite Louisville ; and the contrast between that part of Indiana and Ohio that I had passed through was very great. The people through that part of Indiana seem to be miserably poor, and what is worse, they must be miserably indolent ; in fact the country for that 100 miles looks the most like starvation I ever saw, although my friend Mr. B. says he never saw it look as well as it does this season—says he has not passed through it for the last ten years, and that he wondered if Scotch Johnston could drain and improve the country there. I have no doubt but there is some very good land ; the timber at least denotes the best of wheat land in many places ; but they seem to raise almost nothing, and what they do raise, they don't take care of. A good deal of small wheat shocks standing in fields, weather beaten until they are black. Oh, miserable people ! Here and there you can see a few wheat stacks, and I noticed two stacks built and thatched Scotch fashion, and think some Scotchman has got in among these apparently poverty stricken people. I am sure they could do better if they would try.

We crossed the Ohio river in a steamboat from Jeffersonville to Louisville, which is a fine city—some say about 60,000 inhabitants. There undoubtedly will be more than that when the great fair commences ; but it don't look like a city of over 40,000 to me. Some of their hotels are splendid. The Louisville hotel, I am told, rents for $14,000 a year. I think it the best I ever was in. Land sells, two miles from the city, for two to three hundred dollars per acre. Some farmers, two miles from the city, own from 500 to 800 acres, two of whom have already called on me, and kindly invited me to visit them, which I intend to do I have seen your friend Mr. O'Bannon, who kindly invited me to go out with him 14 miles by railroad, but I had made arrangements to go with a countryman of my own for a time ; but I shall visit Mr. O'B. before I return. We were only acquainted before by letter, but I find him one of those farmers that *suit* me, and I shall spend a day with him.

The fair will commence to-day with horses, and to-morrow I expect to see the Durhams in *full* show.

It is very surprising to me to see such rich farmers through southern Ohio and in this State, do their farming in so slovenly and unprofitable a manner. Nothing is done right but the corn, and that grows so large that no weeds can live among it ; but I see many mowing a tremendous crop of weeds off their potato ground before they can dig their potatoes. In talking with a farmer on the subject, I said I wondered they were not ashamed of such culture. He said, how could they help it, when these weeds grew up after the potatoes were laid by,—that is after they had quit cultivating. I told him they ought not to be laid past so soon. None of them have houses for hay or grain, no shelter for stock, except for horses and mules that they work ; and I have seen no stalls in stables, and would you believe it, very few clean out their stables over once in six months, if they can get in and out for so long. Still the farmers are wealthy. They cultivate 20 acres of corn at as little expense as we in New-York State can cultivate 3 or 4 acres, and everything grows abundantly with little cultivation, and the weeds best of all. I never saw such corn and weeds, *but no Canada thistles.*

Friday, 4th Sept.—The great fair is drawing to a close, and I think it may be safely said that it is a decided failure as far as stock, grain, &c., is concerned, and I think shows that the people do not approve of a U. S. Ag. Society. The show of Durham cattle was few in number, but the quality was superior to anything of the kind I ever saw. They were all huge fat bulls, cows and heifers, by far too much so in my opinion ; and the fat bullocks and heifers I question if they were ever equalled in any country. The fat stock of Durhams I think did not amount to over 20 ; although one of the judges, I did not keep account of the number. There was only 6 bulls three years old. 2 two years, 6 one year old, and about the same number of cows and heifers for breeding purposes. There were some eight or ten Ayrshires, very fine ; the Alderneys I did not see ; the Devons and Herefords were also a meagre show, and a part of them in as bad condition as they possibly could be ; in fact they were poorer than almost any cattle you can see running on the public highway ; not all of them, but a part were a disgrace to any show ; yet they almost all got premiums because there was no competition. The horses were an excellent show, very fine indeed. There were few sheep, but in general excellent,—Leicesters, Cotswolds and South Downs, as fine and fat as they could be made. There were some good Merinos, both French and Spanish. The swine were of all sorts and sizes, from the fine delicate little Suffolk to the mammoth Kentuckian, one of which might make a tierce of side pork.

The fair grounds contain 54 acres—39 acres first bought cost $18,000. There is an amphi theater erected, which I am told seats 9,000 people. It was densely filled every day, and held nearly all the people on the grounds.

The stock are shown inside, (swine and sheep excepted.) There is a stand for the judges in the center, and a stand above the judges for a band of music, which was constantly in attendance, at times enlivening the scene. A large building outside the amphitheater, called Floral Hall, filled with grain, roots, fruits, seeds, flowers, &c. The show of fruits was very fine, but there was only three competitors for winter white wheat ; it was excellent. One barrel red wheat, two of barley very good, two of rye and four of corn very fine, one of oats, also good—the roots were also a small show. Mr. Prince was there with six Chinese potatoes ; they looked very much like *snakes* in shape.

No liquor was allowed to be sold on or around the fair grounds ; consequently there was no drunken people. Indeed everything was conducted in the best possible manner. The worthy President was constantly in attendance ; but my impression is, the United States Agricultural Society may be abandoned for any good it will ever do. G.

Ice Houses, Wheat, Sorghum, &c.

MESSRS. EDS.—ZERO, in the Co. Gent. of 10th inst., tells us how he built an ice house *underground*. His may be a very good way to keep ice. The *Rural New-Yorker* of 5th inst. has a plate, giving a "bird's eye view" of L. F. Allen's ice house *above ground*. This, doubtless, is a very good one, and quite an ornament to the farm buildings, but the expense of fitting up one like Zero's or Mr. Allen's, is much greater than there is any need of, and they cost more than most farmers would be willing to expend for such a purpose, when a much cheaper one will answer.

I built one, winter before last; when completed and filled with ice the whole cost did not amount to over seven dollars. The ice kept as well, and cooled our water, cream, butter, &c., just as effectually as if the concern had cost me fifty or an hundred dollars. Now what I did in this matter every farmer can also do. But some may ask how the thing was done so cheaply. I had at the east end of one of my barns, a shed, 10 by 30 feet. With cheap joist and shaky hemlock boards, I built a room (or box) in the north end of the shed; this was eight feet square inside, leaving a space of about one foot between the barn and the north and east sides of the shed. On the south side of the room put up two rows of joists, abont ten inches distant from outside to outside; boarded it out and inside; then filled all the space around the room with wet hemlock tan; laid down a loose plank floor, and over this a few inches of straw. Sawed the ice in strips 18 inches wide, seven feet long; the ice (not frozen snow) was about 9 inches thick. In less than an hour and a half from the time I started the saws, (there being three of us,) cut enough to fill my ice house. Packed the strips "across and athwart;" this left a vacancy between the sides of the room and the ice, of six inches; this was filled with saw-dust, and about 12 inches of saw-dust spread over the top. Last winter cut the ice when from four to six inches thick; instead of packing in long strips, cut it in squares of about 20 inches. Ice of six to ten inches thick is easier sawed, handled, packed, and keeps as well as if two feet thick. I have made as free use of ice, from the first warm weather down to this 12th day of September, as if I had 20 tons. I think there is yet enough in store to last till the "new crop comes." I think any family that has enjoyed the luxury of ice one summer, would be very unwilling to dispense with it afterwards; and from the facts above given, it will be seen there is no witchery, patent right, or great expense in storing up a full supply of ice for family use, and some to spare.

TURKISH FLINT WHEAT.

Mr. Winspear of Ohio, in Co. Gent. of 10th instant, inquires about the above named wheat. In September, 1855, sowed a package or two of it—mostly winter killed—harvested a little more than the seed sown—this was sown in Sept, 1856. It looked well up to the falling of snow; that went off early in February, and every plant was winter killed, while the white (N. Y.) Flint Wheat, sown by the side of it escaped entirely. During the past two seasons, have experimented with five kinds of imported winter wheat, received from Patent Office—none of them are comparable to the N. Y. Flint. I trust, however, these new varieties have done better farther south, as some of the samples were very fine. Among the lot, was one variety (from Japan,) with a very red chaff, short head and straw, that comes into blossom some ten days earlier than any other kind I have grown, but it has been mostly winter killed the two past winters. If it were hardy and productive, (and it may prove so further south,) it would be an invaluable variety for cultivation in those sections of the country where the midge prevails—from its earliness it would escape their ravages.

SEED WHEAT.

In the same paper, (10th inst.) Mr. Missemer of Penn., inquires for "beardless White Seed Wheat," raised in the latitude of Albany, or farther north. I would just say to Mr. M., that for several years past the N. Y. White Flint, a beardless variety of wheat, has been successfully grown in this vicinity, and I doubt very much if there is any better variety for this latitude. Where sown in season, on well prepared and suitable soil, it has stood the winter well: got ahead of the midge, escaped rust, been productive, making extra flour, and A. 1. bread. Mr. M. can probably obtain this variety of pure wheat of the seedsmen at Albany or Rochester, N. Y.

DETERIORATION OF THE WHEAT CROP—ONE CAUSE.

I beg all wheat growers that have the Co. Gent. of the 20th of August, to carefully read over the article under the above caption, by *Observer*. Seed wheat rubbed out by hand, would doubtless be better than that threshed by the flail, and that threshed by the flail far preferable to that threshed in machines. "Many good wheat growers thresh all their seed wheat with a *flail*, to avoid crushing the kernels by using a threshing machine, which often cracks and bruises at least a *tenth part of the very best kernels*," so says the Sept. number of the American Agriculturist. The drier the grain when threshed in the machine, more of the large kernels are broken, and many that appear perfect have lost their chits or germs. Before the introduction of threshers into this section of the country, one and a half bushel of seed wheat was generally used per acre; now two bushels are found little enough for an acre, and frequently then the crop is too thin.

Being at a grist mill a few days since, I noticed a half bushel measure under the discharging spout of the smut mill. The wheat as it came from the smut mill, passed over a fine wire sieve placed in the discharging spout, so that the very smallest kernels, with the chits or germs of the wheat whipped off, in passing through the smut mill fell into the half bushel. The miller informed me that he annually obtained several bushels of these germs, and fed to his hens, &c. With this I forward you a sample of the germs. With a microscope you will readily see that a very large portion of the wheat after having passed through the smut mill would never vegetate. The same, though probably in a much less degree, takes place in threshing wheat by a swiftly revolving and powerful thresher.

"Like produces its like," is a truism generally acceded to. If the farmer sows large, plump, unmutilated wheat, he will be pretty certain to obtain strong, healthy plants; while if he sows puny, mutilated seeds, if it germinates it will most probably produce feeble, unproductive plants. "As ye sow, so shall ye reap."

I suppose the germs are richer in the phosphates than any other portion of the grain—'tis so with the chits of Indian corn. By the loss of the germs of the wheat, is not the nutritive qualities of the flour deteriorated? Will Prof. S. W. Johnson enlighten us upon this subject?

In conclusion, I would say to those wheat growers who "go in" for improvement, thresh your seed wheat with the flail; with a suitable sieve sift out the small and blighted kernels; sow only large, plump seed. Follow this course for a few years, and with good culture, I trust you will have no cause to complain of the deterioration of your wheat.

CHINESE SUGAR CANE IN HIGH LATITUDES.

In your last issue, Prof. Johnson gives us the results of some experiments in north Germany, on the feeding value of the cane compared with Indian corn. There the cane only produced per acre about one-third as much green fodder as corn. If the same relative proportions held good here, I think the corn must yield over sixty tons per acre. I have recently seen several patches, standing from nine to twelve feet high—hills from two to two and a half feet apart—six or eight of these tall stalks in each hill—some of the pieces have been *headed* ten days or more. Several persons judge there is at the rate of more than twenty tons of green fodder per acre. One of your subscribers here (G. S.) has several pieces. He also has a patch of southern corn planted in drills for fodder. He is of the opinion that, *rod for rod*, the cane will yield the greatest weight of green food. Of its feeding qualities, and of its value as a sugar and molasses plant, it is now useless to judge; a few weeks will throw some light upon these questions. One thing is certain, the cane will better stand the frost than Indian corn. L. B. *Warner, N. H.*

Selecting Seed Corn—Timely Hint.

Farmers will remember that for two or three years past, a great deal of corn came up badly. Last spring, especially, much of it "rotted" in the ground. The loss from this cause is hundreds of thousands the present season. On our own ground (with some 14 acres in corn) the loss was next to nothing. The same is true of some others we could name. What is the reason of the difference? Why does the seed in one field grow, and in another rot? That is just what we wish to come at.

One great cause of the rotting of seed, is that it was never *well ripened.* Another reason is that it is *badly dried.* Poorly ripened and badly dried seed is very easily injured by fermentation, and a very little fermentation and moulding will destroy vitality. Last autumn, we had the best, largest, and ripest ears carefully selected, and braided together by the husks in tresses, and hung in a dry place. This was planted, and notwithstanding the drenching rains and mud, all came up,—not a missing hill or stalk,—and the field is noted as one of the best in the country. The same has been the experience of some others. Those who made no selection and took no care of their seed, have had "very bad luck." Another field was planted with King Philip corn, not trussed; but as this sort ripens so early and perfectly, this operation appears not necessary. It came up as evenly as the other.

Let farmers select their best and ripest ears, and either truss and hang them up, or place them, in the ear, where they will dry thoroughly, (unless it be some very early, quickly ripening sorts,) and there will be better success and *better luck* with the corn crop.

Sweney—its Cause and Cure.

This term is not in the dictionary, and probably in no work on farriery, either English or American. The reason may be that no such disease existed; it being the effect of a cause,—as an affection at the armpit is sometimes caused by an injured hand. The cause of the so-called Sweney is produced by hard driving, or a slight founder, or by a want of growth in the outer rim of the hoof corresponding to that within.

Remedy.—Pare the sole of the foot thin, especially next to the frog. Prepare a shoe for that purpose, and when well set, spread the heel one-fourth of an inch. Repeat the spreading at the end of a week, and again, if the hoof and shoe will admit, when it must be re-set. Keep the sole and side of the hoof moistened with any penetrating animal oil, or with fresh cow dung applied twice a day. Relief will follow, and in most cases in a few weeks the lameness and sweney will disappear.

If the case be too stubborn for these appliances, shear off the hair above the hoof for the space of an inch and a half; wash it clean, and spread on a blister salve—not letting it touch the heel. Bathe it in moderately, by holding a heated iron near it, and smooth it off with your spreading knife in the direction you wish the hair to grow. Tie the horse to the rack for twenty-four hours, so that he cannot reach the plaster with his teeth, and in a few weeks a new and enlarged edition of hoof will be seen protruding. This process may need repeating after four weeks. WM. T. HAMILTON. *Jonesville, N. Y.*

Cure for Colic in Horses.

I am moved by the advantages I have derived from the pages of the Co. Gent., to relate a case and cure of the colic in a horse, for the benefit of others. My horse had been plowing and perspired freely, when the plowman being called off for a few minutes, tied him to a fence at the headland. A brisk wind was blowing, and the horse soon exhibited signs of uneasiness, by shifting his position, raising his hind legs suddenly, pawing, &c. As soon as he entered his stall he threw himself violently down, and manifested all the symptoms of a severe colic. I gave him a dose of ginger, whiskey, oil, laudanum, spirits turpentine, altogether a pint, but it had not the desired effect. I then had him trotted up and down the road, briskly rubbed under the belly by two men, and thus worked with him for hours, and thought it all of no avail, when at one o'clock, A. M., I determined if there was virtue in drugs, to give him a kill or cure dose. Accordingly, I doubled the quantities of the laudanum, turpentine and ginger, poured them down his throat and left him to the care of the men. To my surprise, in the morning I found him alive and apparently over the attack, but very weak.

I determined then to send to the city for our best veterinary surgeon, who gave me the following recipe as a cure for colic, as I deemed my rashness of the preceding night too great to pursue for the future, when a valuable animal is the subject.

CURE FOR COLIC.
3 ounces spirits of turpentine,
1 oz. tincture of opium.

If relief is not obtained in one hour, repeat the dose with one ounce of best powdered aloes well dissolved together.

I feel it a duty to communicate any information that may possible benefit your readers, from whom I have derived much. W. *Baltimore, Md.*

Washing and Sewing Machines.

MESSRS. EDITORS—A subscriber some months since inquired about washing machines. A great variety have been made and sold, but I believe but one kind is now made to any extent, the other kinds not meeting the wants of community. The kind I allude to is "the Metropolitan Washing Machine," extensively sold in some parts of Massachusetts, Vermont and New Hampshire, and I believe is giving universal satisfaction. It is simple, durable, and not likely to get out of order. It does not injure the clothes nor break buttons.

Two months use in a large family satisfies me and all the members of our household, that it really saves more than one-half the work in ordinary washing—many say it saves three-fourths.

Now, Messrs. Editors, please tell us where we can get the best Sewing Machine—for while our sowing, mowing, reaping, pitching, threshing, ditching and cutting our fodder is done by machinery, it will not do for our wives to wear themselves out over the wash-board and the needle. D. LYMAN. *Middlefield, Ct.*

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EARLY FROST.—Quite a severe frost occurred on the night of the 8th inst., in this vicinity, and through a considerable portion of New-England. But little injury was, however, done to the crops, except on low lands.

Inquiries and Answers.

Injury to Carrots.—I have a bed of carrots that was planted this spring, which came up vigorously, and after two or three thinnings seemed to droop—the tops turn yellow, and dry up brown as a crisp. But I would mention that in strewing some some salt over the land near by, I accidentally got some of it over the tops. Do you attribute their decay to this, and will they revive again? Or is it owing to the extreme heat of the weather? Please give me the cause and oblige. R. H. *New-York, August*, 1857. [We are unable to assign the cause of the failure of the crop, from so limited a knowledge of all the circumstances. We have never known carrots injured by a hot sun, when the soil was deep and rich. A small accidentally scattered portion of salt would probably be insufficient to produce the stated result.]

Suffolk Pigs.—J. B. K., *Nashville, Tenn.* We are unable to furnish the information you desire about the shipment of pigs to your place, and would advise you to address Geo. Wilkes & Co., Editors Porter's Spirit of the Times, New-York, who make the purchase and shipment of stock a part of their business, and who will be able to answer your inquiries satisfactorily.

Sweney.—Will you please inform me through your invaluable paper, if the disease which your correspondent calls "Sweney," and gives a cure for, is in the shoulder of the horse, caused by strains of the muscles of the lower bone of the shoulder, as I have a very good horse which is quite lame in the shoulder from a strain, and I should apply his remedy, but not knowing whether my case was the same or not, I therefore must trouble you or your correspondent to enlighten me on the matter. By so doing, you will much oblige A Subscriber. *Toledo, O.*

Mills for Chinese Sugar Cane, &c.—Will you or some of your readers, inform us what sort of mills are best adapted for the extraction of the sap of the Chinese sugar cane, on a small scale? If they are in market, where and at what price, and whether the sap should be boiled in iron, copper, or brass kettles? Also, the proper stage of the plant in its growth when it should be done, and any other information that may be necessary to the inexperienced in the matter. Please reply in next No. N. J. *North Lyme, Ct.* [Answers to the above will be valuable to many of our readers, and we hope some of our correspondents may be able to furnish the desired information.]

Inquiry.—If you or some of your readers will tell me what to do for a fine young mare, it will oblige me and may also some others. My mare, three years old last spring, has something grows out at the heel of one of her hind feet—it looks like the frog of the foot, and reaches near a third up the pastern—grows sometimes to an inch and a half or two inches ln length—hurts her but little—occasionally gets sore and comes off with some bleeding. I would be much pleased to get it cured. G. W. Y. *Rocky River, Tenn.*

Potato Bugs.—Can you or any of your subscribers, tell me how to get rid of the "Potato Bug?" Most every body knows what the potato bug is, but nobody in this country knows how to kill them. R. *Prairie Farm, Tenn.*

Mr. Johnston's Farming.—It is with much pleasure and profit I read your valuable paper from week to week, and I have been especially interested in Mr. John Johnston's correspondence, and your Notes of his Farm and Farming; and it would be a favor to me, and doubtless to many others, if Mr. Johnston would give us through your paper, the cost of carrying on his farm, and the receipts of the same in items for one year. It is often said that book farming will not pay, and I should judge that Mr. Johnston is really what I should call a "Book farming" man—one that intends to make his business pay, or if you please a systematic farmer. If farming cannot be made to pay, carried on systematically, I would advise all to quit the business. N. H. Noyes. *Otisco, N. Y.*

Mr. Johnston is emphatically a "common sense farmer." He seeks all the information he can obtain, whether from books, papers or observation, and is thus enabled to decide intelligently as to the best course for him to pursue. The result is, so far as the profits of farming are concerned, entirely satisfactory to himself, and would be, we are confident from what we have seen of his figures, to the public, were we at liberty to furnish the statement our correspondent desires. Mr. J. does not boast of his profits, but he has sought by his frequent communications to the agricultural papers, to show those farmers who complain that farming is unprofitable, "a more excellent way"—a way in which he has brought a worn-out farm into the highest state of fertility, and that too, without any foreign capital, the products of the farm having not only paid for all improvements, but enabled him to lay aside a handsome yearly per centage on the money and labor invested.

"Garbinzos."—Tell your correspondent I "spec" he is humbugged with this would-be-something-great plant. I acknowledge that I was. I received some of the seed from the Patent Office, as something new under the sun. "Excellent food for both man and beast." Well, I took pains in preparing the soil to test it; and the result is three or four little vines, somewhat resembling the common pea vine, without pods or fruit of any kind. R. *Prairie Farm, Tenn.*

Pasture Lot—Information Wanted.—I have four acres of woodland, pretty well thinned out—soil rather poor, and abounding in small flint stones—that I desire to convert into a pasture lot for two or three cows. A few years ago orchard grass was sown, but it is now run out. As the soil is so thin and poor, I am at a loss to know whether I had better plow the surface lightly this winter, and next spring give it a moderate dressing of unleached ashes, or bone dust, to be harrowed in with clover and orchard grass seeds, or whether to top dress it with the ashes or bone dust, during next winter, and in the spring to harrow it thoroughly after sowing the seed on the turf (such as it is.) Could you not induce some of those agricultural giants, Messrs. Johnston, Dickinson, or others of your experienced contributors, to give a new beginner the benefit of their judgment and experience in such a case? I would be grateful for it. W. *Baltimore, Md.*

Aspects of Orchards. — Will you please give me your experience in regard to situation for orchards —whether a southern or northern aspect be preferable, and if sheltered by growth of trees, on which side or sides of the four points of the compass would you recommend such shelter to be. A. C. H. *Freeport, Ill.*

This is a matter requiring some experience and judgment. A certain degree of exposure to the weather is required for the proper maturity and hardening of the wood of fruit trees. Warm, sheltered valleys, with rich soil, promote rapid growth during summer, and continue it so late in autumn that the intense frosts of winter to which such valleys are especially liable, soon destroy the succulent and half hardy shoots. On the contrary, an exposed hill retards the rapidity of growth, and hastens the maturity of the young wood; while the less intense cold of such situations, in consequence of the freer circulation of air, is additionally favorable.

But too much exposure to winds is also fatal. We have known some of the hardiest trees destroyed by being planted in a strong sweep of the cold wintry weather, while others, in sheltered localities, but equally subjected to low temperature, entirely escaped. Hence it is important to guard against extremes. On the whole, and at the locality of our correspondent, we should prefer an elevated and northern to a southern aspect, the soil being equally favorable, and the sweep of cold winds being in a great measure cut off by the shelter of forest trees at a proper distance or by artificially planted belts.

CLOVER SEED HARVESTER.—I have been told that there is a machine used in the western part of the State, for gathering the ripe heads of clover, by merely scraping them off, and leaving the stems, thereby saving the labor of cutting, curing, and threshing seed clover. If you will have the kindness to inform me through the "Country Gentleman," where I can procure such a machine, with the probable cost, you will greatly oblige me. A SUBSCRIBER. *Auriesville, N. Y.* [There is a machine for this purpose, called "Wagener's Clover Header," but where it is manufactured or where it can be procured, we are unable to say. For description of it, see Co. Gent. vol. iv., p. 135, or Cult. for 1854, p. 305.]

PACKING BUTTER.—Will you do me the favor of inquiring through the Country Gentleman, the best manner for packing butter for winter use. I use a cellar dairy, and pack during the summer about as much butter as I require for winter use. It does not turn rancid, but never keeps as sweet and nice as some butter packed by those more conversant with it. I shall be infinitely obliged for some information on this point. D. B. W. *Baltimore, Md.*

TURNEPS AND RADISHES.—Will the Country Gent. inform me why turnips and radishes sometimes grow all tops, and form scarcely any roots of a good size? And also if there is any way of preventing it? I have a quantity of both which I am afraid will be good for nothing.

APPLE STOCKS.—What are the Paradise and Doucain stocks for dwarf apples? L. H. *Ogdensburgh.*

[Turnips and radishes grow sometimes imperfectly, and probably from bad seed selected from the growth of poor specimens. There may be other auxiliary causes. Will some of our practical gardeners give their experience?

The Paradise apple is a small species, growing three or four feet high, and when common varieties are budded or grafted on it, they are reduced in size but little greater than currant bushes. The Doucain is a large species, in size between the Paradise and common apple, and forms larger dwarfs.]

KEEPING CIDER SWEET.—Will you be kind enough, through the columns of the Cultivator, to inform me and some of your other subscribers, how to keep new cider sweet, for months after it is made, as I am informed it can be done; also, how to make cider like champaign wine. JOSEPH LINDSEY. *Philadelphia, 8 mo. 28th.* [It is kept sweet by *boiling* before it commences fermentation—the common practice being to boil it down to one half its first bulk, or less—but we have known it to keep sweet a year, after reducing it only one-third. The second inquiry we cannot answer.]

MICHIGAN AG. COLLEGE.—Will you please to give me the address of the State Agricultural College of Michigan? I have seen notices of it in your paper, and I have no other way to get a prospectus or a catalogue than by writing you. PATER. [Address R. D. WEEKS Secretary, Lansing, Mich.]

OUTLET FOR DRAINING.—In draining with tile, how is the outlet of the ditch secured? Is the tile carried out, or is there broken stone put between the end of the tile and outlet? G. P. *Sykesville, Md.* [If the ditch discharges from the side of a steep bank, and is not in danger of being obstructed by the tread of animals, the water may discharge from the tile itself. But if the tile is of such a nature as to crumble from frost, and the above named requisites cannot be secured, the end of the ditch should be filled with small or broken stone, through which the water may escape.

FLEAS.—I wish to know what means will enable me to get rid of fleas. Is there any thing that could be put into a bed, or wherever they may be, which would be effective in driving them off? A satisfactory answer to this will be a favor to more than one of the afflicted of your readers. J. E. W. *New Ross, Ind.* [We do not know any remedy for fleas except killing them. We have indeed heard of the Frenchman's remedy of choking them with brick-dust,—

"First den, you catch de flea.
Den put some little powder down he troat," &c.;

but really, we have no great confidence in the practicability of this method. We must apply to our correspondents.]

TO DESTROY BRAKES.—I see in the last Cultivator, an inquiry, how to kill brakes in a pasture that cannot be plowed. I would say, mow them as soon as they are large enough, say in June, and keep them down by mowing, and there will be but few the second year if any; in a hard case, it may take two years, but in my case it has killed them when it has been faithfully done. ROBERT HOLMES. *Johnson, Vt.*

DISEASE IN APPLE TREE BARK.—Quite a number of my father's apple trees have been attacked by a strange disease, which commences on the bark of the stem of the tree by a small circular spot, becoming brown and drying. In a short time after, quite a number of spots of the same kind will be seen. These spots continue to increase in size and number until a large portion of the bark is dead. Any information as to the cause and cure of this strange disease will be thankfully received by me through the Cultivator. D. M. N. *Lewisburg, Pa.* [The insertion of the above has been accidentally delayed—can some of our correspondents throw any light on the subject.]

CANADA CLUB WHEAT.—Permit me to inqure through you, for a description of Canada Club Wheat. Is it bearded or not? Is it red or white chaff? Is it liable to smut or rust? What kind of grain has it—is it flinty or like white winter wheat.

CORN CUTTER.—If any one is acquainted with a practical corn cutter that is worked by horse power, I would like to know where they can be had, the price, &c. A. C. ADKINS. *Plymouth, Ill.*

WOLF TEETH.—I wish to know what difference there is, if there is any, between wolf teeth and blind teeth in horses, and the effect which each of them has on the usefulness of the animal. J. E. W. [The same teeth are referred to under both names. The effect they are supposed to have in producing blindness, has been frequently referred to in this paper.]

POTATO BUGS.—Your correspondent "R." is informed that threshing "potato bugs" has had the desired effect—not to kill them, but to make them "leave for parts unknown." W. *Galesburg, Ill.*

DRAINING TILES.—I wish to get information through the *Country Gentleman*, in regard to tile for drain. Which is the best, the sole tile or the horse shoe tile, and whether or no the horse shoe tile is apt to fill up and obstruct the drain. Will some one who has had experience in tile draining answer the above, and oblige a SUBSCRIBER.

PRUNING THE LARCH, &C.—Can you tell me the best time to prune the Larch, to give it a conical form? both European and American? also American Arborvitæ? J. T. LITTLE. *Dixon, Ill.* [In the spring, at the commencement of growth.]

The Fair of the Albany Co. Ag. Society—Was held in this city last week according to notice, and but for unpleasant weather on the last day, would probably have surpassed, in respect to pecuniary success, any of its predecessors. The receipts up to Wednesday night were far in advance of the same time last year; those of Thursday, however, were cut down so much by nearly incessant rains, that the total is somewhat less. In Fruits and Flowers the show was a remarkably fine one. The turn out of stock was very good,—both of Horses, Cattle and Sheep, while the Pigs were particularly excellent. There was a large display of Poultry, a fair exhibition of Implements and Machines, while Domestic and other Manufactures, articles for the table and household use, &c., &c., included an extensive and showy variety.

The city papers have already given so full lists of entries, premiums, &c., that with the limited space at our command, we feel unable to notice this exhibition at as much length as otherwise would have been expected in our columns. Among the prize-takers in different classes of Horses, we notice the names of E. A. Fitch, New-Scotland, Barent Mynderse, Guilderland, Vischer Lansing, Watervliet, John Appleton, Albany, J. H. Booth, Bethlehem, A. Fitch, New-Scotland, H. Yates and E. Frisby, Albany, John Chadwick, J. J. Callanan, J. W. Jolly, De Witt Phillips, W. J. Snyder, W. W. Thompson, C. V. Truax, J. Wetherwax, and others.

Among successful competitors in the Durham classes, were Henry Sherman, Albany, W. M. Bullock and G. H. Seeley, Bethlehem, and Wm. Janes of Albany. W. M. Bullock, E. Corning, Jr., and D. Callanan of New Scotland were awarded prizes on Herefords. President Hilton, Peter McHarg, Peter Weeden, John Witbeck, J. Wilkinson, and Joseph Haswell were prominent among Devon exhibitors.

Among the largest and best exhibitors of sheep and swine, were John H. Booth, Henry Bailey, E. Corning, Jr., Sanford Cook, J. W. Jolley, Wm. Janes, Jas. Maher, Jas. L. Mitchell, Jacob Ten Eyck, P. P. Vail, Jurian Winne, P. Weeden, &c. The largest and best exhibitions of Poultry were made by John Anderson, H. Bugden, B. Gibson, W. R. Hills, J. V. A. Lansing, John McBain, W. H. Richardson, Wm. Richardson, G. E. Rice, J. N. Seelye, Peter Van Wie, and E. A. Wendell.

Great credit is due to John Wilson for his fine display of Flowers, Plants, Fruit, Bouquets, &c. Among other exhibitors in these departments we should not fail to notice G. Decker, Geo. Becker, E. Corning, Jr., E. Dorr, S. W. Gibbs, W. Hurst, A. Menand, J. L. Mitchell, Dr. A. March, J. B. Radley, Wm. Richardson, Peter Van Wie, M. E. Viele, H. Visscher, Saml. Warren, M. A. Wands, R. P. Wiles, &c. Collections of Vegetables, more or less extensive, were contributed by E. Corning, Jr., J. Hills, N. Hussey, J. M. Houghtaling, W. Janes, Wm. Moore, J. S. Slingerland, J. Simmons, Z. M. Sanders, S. V. Thornton, P. P. Vail, &c.

Beautiful Working Oxen were those of W. H. Slingerland, of Bethlehem, John D. Johnson, of New-Scotland, and the prize pair last year belonging to President Hilton. The Steers of D Callanan and F. Moak, of New-Scotland, J. L. Ten Eyck, J. H. Booth, and D. Onderdonk, of Bethlehem, and P. Worden, of Rensselaerville, were deservedly admired. But one of the prettiest sights on the grounds were the matched calves of John McHarg of Bethlehem, and John Witbeck of New-Scotland, with their young but well-drilled drivers.

The thanks of the Society are due to the enterprising merchants and manufacturers of the city, for their generous aid in the way of contributions to the display. Many of them will have its Diploma as an enduring memento of their success, and a recommendation of their wares or inventions to public patronage. Among manufactures of particular Agricultural interest, were the large collection of Implements shown by R. H. Pease, a Corn Sheller, by Cassidy & Chism, Mowing Machines by Hallenbeck & Cunningham, Farm Wagons by M. Hallenbeck and J. W. Jolly, Market Wagons by Lyon & Chandler, and O. H. Osborne, Drain Tile by C. & W. M'Cammon, Geo. Alderson and John Appleton, the Hot-House Boiler of S. T. Savage, and and a variety of Implements, &c., by D. W. Seelye, and others.

The Horticultural Society of the Valley of the Genesee holds its fall exhibition at Corinthian Hall in Rochester, on the 1st and 2d days of October next. It is expected to be an interesting exhibition, as unusual efforts are to be made for that purpose.

The Sale at "Moreton Lodge."—We learn from Paoli Lathrop, Esq., of Hadley, Mass., that the sale of F. W. Stone, Esq., of Moreton Lodge, near Guelph, Canada West, was well attended, and that the excellent stock advertised were sold at good prices. Mr. L. was passing through this city Monday, in company with B. Emerson, Esq., of California, both having in charge several head of cattle purchased of Mr. Stone. Mr. Lathrop's were as follow:

Bianca, red and white; calved January 25th, 1854, imported 1855, got by Minstrel, (11,818,) dam Banksia, by Shepherd's Purse (10 804.) Price $380.

Lady Chesterford, roan; calved 19th April, 1854. imported 1855, got by Earl of Ducie (12,799,) dam. Lady Jane, by Red roan Kirtling, (10,691.) Price $500.

11th Duke of Oxford, red; calved 20th February, 1856, got by 6th Duke of Oxford (12,765.) Price $600.

John Bull, red and white; calved 1st July, 1857, got by John O'Gaunt, 2d, (13,089.) Price $200.

Mr. Emerson's purchases were:

Rose of Summer, red; calved April 8, 1857, got by John O'Gaunt 2d, (13,089.) Price $305.

Lady Bolton, red and white; calved 16th March, 1856, got by 2d Duke of Bolton, (12,739.) Price $400.

Lady Farnham, roan; calved 27th March, 1857, got by John O'Gaunt, 2d, (13,089.) Price $200.

Guelph, a roan bull; calved 3d Nov. 1856. By the same sire. Price $650.

John of Guelph, red and white; calved 23d Feb., 1857. Sired as above. Price $250.

These animals will be a great acquisition to the stock of California, whither it is their owner's intention to take them at an early day.

We believe the above are the only purchases made to come to the States, with the exception of a bull, "Wall-Flower 7th," purchased for Justin Ely, Esq., of West Springfield, Mass., and the heifer "Peach Bud," the cow "Duchess 3d," and several head of Cotswold Sheep, for S. W. Buffum, Esq., of Winchester, N. H.

☞ We have received some specimens of queer looking peas and beans from our friend Dennis of Applebackville, Pa., the names of which we have not been able to decipher.

Black Hawk and Lady Suffolk.—The skins of these distinguished horses have been set up, and will be exhibited by Mr. Charles A. Hill at various Agricultural shows this autumn. They will doubtless attract much attention

Notes for the Month.

The Highest Bid at Mr. Webb's Ram-Letting.—We are informed that the "Mr. Lindsay of New-York," referred to on page 112, Co. Gent., as having paid the highest price at Jonas Webb's South Down ram-letting for the use of a single ram, (£197, or about $985,) should have been R. Linsley, Esq., of West Meriden, Conn. It is also stated that he subsequently purchased this animal for 400 guineas, or $2,000. It took the second prize at the Royal Agricultural Society's shows, both last year at Chelmsford, and this year at Salisbury. To show that the price paid is not so *very* extravagant, we may add that the *hire* of another of Mr. Webb's rams, during the past three years, amounts to nearly as much—it having been bid off in 1855 for 170 guineas, in 1856 for 130, and this year for 70—total 370 guineas. As these are the prices at which the best farmers of England estimate the practical value to themselves, of one year's use of a good male, may not our farmers derive therefrom a lesson of importance—the benefit of securing the services of improved males to raise the character and improve the qualities of their stock—including cattle and swine as well as sheep?

Water for Irrigation.—During the recent Salisbury meeting of the Royal Ag Society, an interesting lecture was delivered on water-meadows, to which we may hereafter refer more at lenth. In looking it over we notice that the speaker's views coincide with those of A. B. Dickinson in several respects. Night irrigation, or in shady weather, is better than under a warm sun. Turbid water, which will leave a deposit behind it, is particularly commended. But the quality of the water is especially insisted on. The *purer and softer it is*, the better for irrigation. The water which produced the richest vegetation the speaker had ever seen, on analysis was found to be remarkable in these respects. The temperature of this spring-water, was three degrees lower in May and June than that of river water adjoining, but when both were tried on the same meadow, the latter would not produce half the grass yielded by the other. Moreover much smaller quantities of the spring water could be used with equal advantage.

Self-Acting Gate.—A communication from Mr. S. J. Sherwood of Wisconsin, dated March 1st, has since been crowded out of our paper from week to week. We should publish it even at this time, but the writer proposes in it to give a fuller description of the self-acting gate he had then successfully employed for a few weeks, with the modifications further experience might suggest; and, now that several months have elapsed, such a communication would probably be of greater interest than the one before us. We should be pleased to receive it. A good Automaton Gate is much needed all over the country, and if our correspondent's invention is superior to others in any respect, it would be of general service to make it more widely known.

Chinese Sugar Cane. — Your favor of a small package of Sugar Cane seed was received and planted about the 20th of May. It came up in about 10 days, showing a small yellow stalk, in size and appearance resembling broom corn—grew very slow for four weeks. After the warm weather came it began to go ahead. I have this day (Aug. 15) measured, and find it to be from six to seven feet and ten inches in height, as it stands. Don't know what I shall do with the *stuff*, but think I can supply a Lake George fishing party with about 500 rods, if it continues to go ahead for three weeks to come as it has for the past month. E. S. S. *Hartford, N. Y*

Another Sight Worth Seeing.—Rock County, Wisconsin, is one of the finest, if not the best of all the counties for farming purposes which we visited in our western tour, and we were told that it was considered the best county in that state. The following from the Chicago Tribune, will afford some idea of the extent to which wheat is grown in that vicinity:—"A friend of ours says that one day last week he went up to the top of a hill called Mt. Zion, six miles from Janesville, Rock county, Wis, and counted on the surrounding plain one hundred and sixty-four horse power reaping machines, busily cutting down wheat. There were one thousand men, women and boys following after, binding and shocking up the golden sheaves. It was a sight worth seeing, to behold the grain falling and being gathered up at the rate of two hundred acres per hour

Shade Trees in Pastures—I have a small dairy of eleven cows, cared for by an efficient dairy-maid. The cows have the run of *two* pastures, one of which is an old pasture, in grass twenty years, with *a plenty of shade* in it, a belt of timber occupying a portion of the lot, and two brooks running through it of cold, sweet soft water. The other is a *new* piece, seeded down two years ago to clover and timothy, with *no shade*, and a scant supply of water, so that the cows go to drink as soon as they are let out at night; yet in this last mentioned pasture the cows give a pail and a half more milk in the twenty-four hours, than in that supplied with *plenty of shade*. Grass in both equally abundant. So much in favor of A. B. Dickinson's experience. W. M. W. *Sweet Briar, Aug.*, 1857.

Milk Sickness.—The S. C. Farmer and Planter copies from the Country Gentleman (vol. viii, p. 300) the article on this subject, written by Dr. Isaac Hutchinson of Evansville, Ia., and remarks—"If the writer of the following article on the cause of this dreadful disease is correct, he is entitled to a large reward which we have understood has been offered for the discovery. We have always suspected it to be something of a very volatile nature, having a strong affinity for water from its being deposited with the dew on grass, &c., and from its absence where no dew is to be found."

Ohio Plows.—Mr. John L. Gill, plow manufacturer of Columbus, O., mentioned in the course of a recent call at our office, that he is now making four kinds of each of seven different sizes, and that his sales this spring were in the neighborhood of four thousand plows, while he hopes to get three thousand more ready for the fall trade. His market is mainly in his own state and Kentucky, where implements from his factory are in high repute. As there are eight or nine other large plow makers, if we are not mistaken, in Ohio, it is scarcely necessary to add, that there must be a vast number of furrows turned by the "Buckeyes," and that, too, with new plows, in the course of a twelvemonth.

The Highland Society held its Show at Glasgow, eliciting a respectable turn-out, although the occurrence of the Yorkshire meeting the same week kept most English exhibitors at home. In Short-Horns, Mr. Douglas of Athelstaneford was the principal exhibitor, and much credit is given him as a skillful and enterprising breeder. The first prize bull at Salisbury was present, having been purchased from the breeder, Mr. Fawkes, for £200. There were nearly 200 entries of Ayrshires, although this seems not to have been quite as good or large a turn-out as was expected. This breed is shown mainly on its milking qualities (of which this is not so favorable a season to judge,) and it is stated that "while breeders are sacrificing the milking properties of the Short-Horn, the breeders of Ayrshires are pursuing an opposite course, in sacrificing form to the milking properties." There was a fair turn-out of Polled breeds, Angus and Galloway, and of the Highland cattle. The Clydesdale Horses were pretty well represented; other classes, thorough-breds, &c., &c., not so largely or favorably. The Sheep included Leicesters, Blackfaced, Southdown, Cheviot and Cotswolds. The Swine were very good—most prizes in this department going to English competitors. The Implement department "did not come up to the same standard of excellence as that of the stock."

Labor-Saving Machines. — A correspondent in southwestern Pennsylvania, write us as follows :—"The reading of your paper has made me, in the eyes of my brother farmers, a perfect visionary, because it has induced me to use the jointed harrow, the roller, the subsoil plow, reaper and mower, &c. I first learned about these from your paper, and as they have all proved successful and profitable, I am now about purchasing a two-horse power threshing machine, which I trust I shall find equally serviceable." We do not doubt it, nor do we doubt but your neighbors will ere long follow your example in this as they have in other matters.

U. S. Ag Society's Premiums on Reapers and Mowers.—The Premiums on the machines tried at Syracuse in July, were declared at the Louisville meeting of the U. S. Ag. Society on the 4th inst. The awards were as follows:

FOR REAPERS.

1. To C. H. McCormick, Chicago, Ill.—Gold Medal.
2. Walter A. Wood, Hoosick Falls, N. Y.—Silver Medal.
3. To Warder, Brokaw & Child, Springfield, Ohio—Bronze Medal.
4. To Jona. Haines, Pekin, Ill.—Diploma.

FOR REAPERS AND MOWERS COMBINED.

1. To Walter A. Wood, Hoosick Falls, N. Y.—Gold Medal.
2. To D. M. Osborne, Buffalo, N. Y.—Silver Medal.
3. To Warder, Brokaw & Childs, Springfield, Ohio, Bronze Medal.

The award for Mowing machines has not come to hand.

The Sale of Mr. Wade's Stock at Cobourg, C. W., took place Aug. 26th and 27th. We learn from the Rural New-Yorker, that the attendance was good, but that very few from the States were present. All of the cattle remained in Canada with the exception of three head, which were purchased by J. O. Sheldon, Esq., of Geneva, N. Y. Many advertised were withdrawn from sale. Thirty-eight head were disposed of at prices varying—for Cows—from $80 to $210; Bulls $80 to $200; Grade Short-horns, from $60 to $80. The Sheep (Leicesters,) looked finely and brought all prices, from good butcher's rates to $80 per head.

Importation of Improved Stock.—Messrs Thos. Betts & Co., New-York, have just received, via Quebec and Montreal, an extensive importation of improved stock, embracing 11 head of Short-Horns, 2 Herefords, 41 South Down and 10 Hampshire sheep, and one thorough-bred stallion, all of which are for sale. Besides these, the cargo included the following animals, selected and purchased for the gentlemen named: Thorough-bred Stallion, for Quincey A. Shaw, Esq., Boston; thorough-bred Brood Mare, do. do.; Short-Horned Bull, for R. H. Dulany, Esq., Virginia; two Short-Horned Heifers, do. do.; South Down Buck from Jonas Webb, for R. H. Dulany, do. do.; ten Devons, for Alfred M. Tredwell, New-York city, and Linsley Brothers, Meriden, Conn.; two Shropshire Bucks, for Captain Fullerton, Boston; one Short-Horned Heifer, do. do.; three Pigs from prize stock, for C. B. Haines, Esq., New-Jersey. Messrs. Betts are expecting two more cargoes of stock this fall—one to arrive in October, and the other in November.

Sugar Cane vs. Corn stalks.—Mr. Jacob Sax, Sheldon, Vt., writes us that he raises a variety of large sweet corn, the stalk of which he thinks possesses more saccharine matter than the Chinese Sugar Cane, or the sugar beet.

Fine Sheep.—Mr. C. L. Whiting of Granville, Licking Co., Ohio, passed through this city last week, with a lot of Cotswold or New-Oxfordshire sheep, purchased of Mr. John T. Andrew of West Cornwall, Conn., consisting of a four year old ram, and five two-year old and one lamb ewes. They were good specimens of long-wooled sheep, the ram weighing 236 lbs. and the ewes averaging 170 lbs., all in moderate condition.

Peabody's Seedling Strawberry.—The Alabama State Ag. Society have awarded to Charles A. Peabody, Esq., a Gold Medal of the value of $50, "as a testimony of their high appreciation of his success in the propagation of his unequalled strawberry, the *Seedling Hautbois*, and in bringing the culture of the strawberry to such perfection."

Good Wool and Heavy Fleece.—You will find a small lock of wool enclosed, a sample of a Spanish Merino buck's fleece, which is a little short of one years' growth, which weighs 21¼ pounds. I do not mention this thinking to boast on heavy fleeces, but seeing an account of a fleece in one of the late numbers of your paper which weighed 17 lbs., I thought perhaps it might be gratifying to you to see the sheep that shears 21½ lbs., which you may do should you attend the State fair at Buffalo. A. J. Dike. *Depeyster, N. Y.*

Sorgho and Imphee, the Chinese and African Sugar Canes—a treatise upon their origin, varieties and culture, their value as a Forage Crop; and the manufacture of Sugar, Syrup, Alcohol, Wines, Beer, Cider, Vinegar, Starch and Dye-stuffs; with a paper by Leonard Wray, Esq., of Caffraria, and a description of his patented process for Crystalizing the juice of the Imphee. To which are added copious translations of valuable French Pamhlets: by Henry S. Olcott. Fully Illustrated with Drawings of the best machinery.

The above is a duodecimo volume of 350 pages, just issued by A. O. Moore, (late C. M. Saxton & Co.) Agricultural Book Bublishers, New-York, and contains, we may well suppose, all that is now known in relation to the matters to which it is devoted.

Premiums for Trees on Highways.—The Aquidneck Ag. Society of Rhode Island, have as we think very wisely offered premiums "for Ornamental Trees planted during the present year, to grow in front of their premises in the public road, not less than four feet high, and not less than ten feet apart, to such as shall be entitled to the same, regard being had to the number and quality planted, and the length of the owner's front." We hope this example will be followed by other societies.

Spring Rye.—I have a new kind of spring rye, called "Egyptian Spring Rye." I send a few grains as a sample. I think it will yield well. I sowed one bushel which will produce, I think, at least 22 bushels. D. Hallenberger. *Pennville, Pa*, (The seed enclosed was a very fair sample of rye.]

Manures on Prairie Soils.—A residence of twenty years in this state, (Illinois) with some experience and observation, proves that our prairies are not benefitted by the addition of manure for any of the small grains; but for our *great crop*, Indian corn, and the grasses, especially timothy, it will pay here as well as anywhere.

Millet Seed.—An analysis of this grain made in Great Britain, gives the following results:

Albuminous compounds.	15.00
Starch, with a little gum, sugar, and woody fibre,	65.80
Oily matter,	3.60
Water,	11.20
Inorganic constituents, (Ash,)	4.40
	100.00

This shows, what has before been stated, that it possesses great value for feeding purposes—some authorities considering it superior to any of the cereals. In some Provinces in India it is extensively used by the inhabitants, and is generally regarded by them more nutritious than wheat. Without any design to create a "sugar cane" or "mulberry-tree" excitement on the subject, we may express our surprise that the plant has not yet come into more general cultivation. We wish any of our readers who may have tried it, would report the results, and that those who have it growing would take some pains to make experiments. It may be added that those intending to use millet for feeding purposes should have it reduced into meal, the finer ground the better, and when intended for pigs, the meal should be previously boiled or steeped for a time in hot water.

Phrenological Almanac. — We have received Messrs. Fowler & Wells' Phrenological Almanac for 1858. It is got up in their usual good style, and contains a variety of matter interesting to the general reader as well as to Phrenologists, with about twenty portraits, accompanied with letter press descriptions. Address Fowler & Wells 308 Broadway, New-York.

Making Vinegar.

L. Tucker & Son—We have no luck in making vinegar. Please inform us through *The Cultivator*, of a good way to make it, and you will much oblige A Subscriber. *Rochester, Pa.*

Cider in this country, malt liquors in England, and fermented grape juice in wine countries, are used for making vinegar. All these contain an abundance of organic matter, which induces fermentation; they absorb oxygen and give off hydrogen in the form of water. Hence, unlike the vinous fermentation, the presence of air is essential. But it must not be too largely admitted, lest it carry off certain parts essential to success. A barrel or cask is most convenient, with the bung open and covered with gauze to exclude insects.

Vinegar may be made by exposing one part of brown sugar with seven parts of water, and a small quantity of yeast, in a cask with open bung hole, for some weeks to the action of the sun's rays. But this vinegar is not so good as made in some other ways, being more or less viscous.

An excellent mode is the following: Mix a gallon of molasses with a barrel of cider, warm it in a large kettle, then put the mixture in a barrel with a few sheets of brown paper. Keep it in a warm place with the bung open, through which a stick is inserted for stirring it, to break the scum and admit the air. The vinegar may be drawn as needed, and its place supplied by cider, which in its turn will be converted to vinegar.

Variety in Fruits.

The present season shows the great advantage of cultivating as many of the different species of fruit as practicable, in order to secure a supply of *something*. The peach crop, is never looked upon as very certain anywhere; but in its absence we have been in the habit of looking to plums and apples. But the plum and apple crop are both a failure this year in most parts of the country—the plum from rotting chiefly, and the apple from injurious effects of the cold winters and dry summers on the trees, and the present unusual and unfavorable summer. Yet where all these have failed, pears have often produced fine crops; and even where pears too have failed, the small fruits for summer and the grape for autumn, have proved very valuable. The currant is probably the surest of all fruit crops, and this with its almost universal freedom from any disease or blight of the fruit, places it high on the list of valuable kinds. The raspberry, and especially Brinkle's Orange, and the Rochelle Blackberry, have filled a vacancy occasioned by the failure of early peaches and apricots; and strawberries and currants have taken the place of cherries. We would recommend to all landowners, who desire to secure a certain supply of fruit in different seasons, to omit the planting of nothing which possesses a fair character or promise—beginning with strawberries, and including raspberries, currants, gooseberries, blackberries, grapes, melons, and the best sorts of cherries, apricots, peaches, plums, apples, and pears, both standard and dwarf.

Value of Hay Caps—How Made.

Eds. Cult. and Co. Gent.—I saw in your last number a notice of hay-caps, taken from the Co. Gent. Having now had four years experience in their use, and found that in all farming tools simplicity is a matter of first importance, I have abandoned all additions to the cotton cloth, and use it alone. Any water-proof cover is useless and injurious. A good heavy article of cotton (not twilled, but heavy sheeting,) will turn a week's rain. You want no sticks or stones—pull out a lock of hay and twist it around the corner of the cover, and one of our mountain thunder gusts will not move it. Let any one take four yards of Amoskeag cotton, cut it in two, sew it together *with a double seam*, hem the two ends, and it will make a cover two yards square. When you have saved a crop of hay or grain worth twice as much as that of your neighbor who will not expend a shilling to save a dollar, dry your covers very carefully, tie them, when neatly folded, in bundles of 25 each, put them out of the way of rats and of people who just want a cloth to cover up something, and in four years your covers will be as good as new. W. H. Denning. *Fishkill Landing, N. Y.*

"Chinese Sugar Cane."

Eds. Cult. and Co. Gent.—As this plant is just now exciting much attention throughout the country, any thing connected with its habits and growth may not be uninteresting. I have a small lot of it, which was planted the latter part of May. It has received no more attention than is usually bestowed on Indian corn, but its growth has been vigorous and rapid beyond any thing I have ever seen Many of the stalks now exceed 12 feet in height and 4½ inches in circumference. It is finely headed, and in ordinary seasons there can be no doubt of its maturing; but the past has been so cold and backward, that it is somewhat doubtful of its now ripening sufficiently to fully develope its saccharine properties. It must, however, I should think, prove valuable for forage, from its rapid growth and the great amount of suckers thrown up from its roots. In many instances, where but one plant was left in a hill, there are now 4 and 5 large stalks from 8 to 12 feet in height.

Should the season prove favorable to its fully maturing, I intend to make some experiments, and will "report progress," and possibly, if an opportunity occurs, may give you a taste of its sweets. E. Leffingwell, M. D. *Aurora, Cayuga Co., N. Y*

How to Build an Ice House.

Messrs. Editors—I take much pleasure in giving your Jersey Subscriber, what information I am possessed of in relation to "Ice Houses built of stone under ground." I have one built in the following manner: After excavating, a dry stone wall was laid, and all the crevices afterwards well pointed up with cement. Its shape is circular; diameter across the top 15 feet; depth 16 feet, tapering down to 10 feet across bottom. I have a building over it, which I use as a tool-house, octagon shape, eight feet high, the roof rising to a point. The sides are double, sealed overhead with boards, and a small opening in the peak for ventilation. The pit was so constructed that the ice would remain compact and solid as it melted and settled. The ice holds out until October.

My neighbor has one built of stone also, but in a different way. It is laid up with stone dry wall, and not cemented; arched over with brick like a cistern, with an opening in the top to put in the ice, and closed with a double cover with lights in each. It is built along side his house, and he has a door-way from the basement, from which he takes his ice during the summer, so that he has no occasion to remove the top until he wishes to refill it. We lay posts on the bottom, and on them several bunches of faggots, and line the whole with straw. The ice does not keep as well in this one as in mine. The ice must be packed close and particular attention paid to ventilation and drainage. Zero.

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Fruit Growers' Society of Western New-York.

This Society held its autumnal exhibition and meeting at Rochester on the 18th and 19th days of the present month, and like its predecessors, was the means of eliciting a large amount of interesting and valuable information from the members. The subjects chiefly discussed were cultivation of pears on quince stock for extensive marketing; the leaf blight and cracking in the pear; the superiority of fresh soils for trees over those previously cropped with them; the best mode of training standard pears for orchards; the proper age for nursery trees when they are removed to the orchard; preserving fruits in cans, jars and bottles; the market culture of the raspberry and blackberry, &c. On all these subjects, many valuable facts were stated, the substance of which we hope to give in our next number.

Among the prominent speakers present, who took part in the discussion, were Charles Downing of Newburgh, L. E. Berkmans, of Plainfield, New-Jersey, W. P. Townsend, and C. L. Hoag, of Lockport, T. C. Maxwell and W. Smith, of Geneva, S. H. Ainsworth, of West Bloomfield, P. Norton, of Brockport, W. B. Smith, of Syracuse, Dr. Bristol, of Dansville, J. J. Thomas, of Union Springs, and P. Barry, H. E. Hooker, J. Frost, C. P. Bissell, and others, of Rochester.

Among the collections of fruit, were 77 sorts of the pear, and many other fruits from H. E. Hooker & Co., 42 of the pear from A. Frost & Co., and fine collections from Pratt, Bronson and Merrill of Geneva, Hooker, Farley & Co., and W. King of Rochester, and A. Covey of Penfield. But the finest collection by far, was that of Ellwanger & Barry, consisting of 195 varieties of the pear, *selected* from a much larger number, and consisting almost wholly of the finer sorts, and many of them of great rarity and excellence—and 22 varieties of the plum. Among the latter *Pond's Seedling* was conspicuous for its brilliant color and great size, most of the specimens measuring two and a half inches long—and there were many other sorts of much interest to fruit growers. Charles Downing presented beautiful specimens of the Delaware grape; and fine clusters of the Rebecca were sent by W. Brocksbank of Hudson.

◆ ◆ ◆

A New Winnowing Machine.—Mr. R. Nutting of Randolph, Vt., exhibited a new machine at the late State Fair in that State, which is thus described by the Green Mountain Freeman:—"Among the new inventions, we noticed a machine somewhat resembling a fanning mill, yet more portable and symmetrical in form, for *cleaning* every kind of grain, grass and garden seeds, beans, peas, and *separating* each kind from every other kind, invented by R. Nutting of Randolph, and now exhibited for the first time, which seems to be an exceedingly useful invention, and possesses a wonderful capacity to separate oats, cockle, wild grass, and all foul seeds from wheat or any other grain, sorrel seed from herdsgrass, the larger kernels of grain or seeds from the smaller for seed, &c., which operations we witnessed. It seems withal to be very simple in construction, and is operated with much less power than winnowing mills, and by a very simple attachment the weight of the operator keeps the machine in any desired place."

MACEDON NURSERY.

THOMAS & HERENDEEN

OFFER for sale an extensive collection of APPLES, PEACHES, CHERRIES, PEARS and PLUMS, and Hardy GRAPES, RASPBERRIES, GOOSEBERRIES, CURRANTS, and other of the smaller Fruits of the most valuable sorts grown in the Northern States, and in ALL CASES PROVED GENUINE.

Their Ornamental Department contains the best

Hardy Imported and American Evergreens,

Ornamental Trees. Shrubs, and Herbaceous Flowering Plants, the latter especially selected for their showy and brilliant character, in fitting them for Lawns and Door-Yard scenery.

All orders directed to "THOMAS & HERENDEEN, Macedon, Wayne Co., N. Y.," will meet with careful and prompt attention, and the Trees and Plants will be packed in the most secure manner for safe conveyance to any part of the United States.

A general or Retail Catalogue, and a condensed and Wholesale Catalogue for Nurserymen and Dealers only, furnished on the receipt of a stamp for the postage on each. Oct. 1—w5tm2t

---

Dutch Bulbous Flower Roots,

FOR FALL PLANTING

CONSISTING of choice Double ahd Single Hyacinths—price 20 cents each, or $2 per dozen.

Early, Late, Single and Double Tulips, varying from 10 to 20 cents each. A choice mixture at 75 cents per dozen.

Crown Imperials—25 cents each.

Polyanthus Narcissus and Early Roman do.—20 cts. each.

Double Narcissus—10 cents each.

Mixed Crocus—25 cents per dozen.

Arum Dracunculus, or Dragon Flower—25 cents.

Double Snowdrops, Anemones and Ranunculus—50 cents per dozen.

Large White Lily—10 cents each.

Double do. do. —25 "

" Jonquilles—10 "

Gladiolus Communis and Byzanturm—10 cents each.

Peacock, English Bourbons and Persian Iris—10 cts. Chalcedonian do.—20 cents.

Any Bulbs not included in above list, can be obtained at short notice. All the Bulbs offered by the subscriber are first class, and such as will give satisfaction. All orders promptly attended to. W. THORBURN, Seedsman,

Sept. 24—w6tm1t 492 Broadway, Albany, N. Y.

Pacific Ocean Guano.

200 TONS, containing 6 per cent. of ammonia, and 40 per cent. of phosphates—in quantities to suit purchasers. A. LONGETT,

Sept. 10—w4tm1t. 34 Cliff-st., New-York.

CHOICE IOWA LANDS,

FOR SALE LOW.

200 ACRES of excellent Farming Land, within an hour's ride by railroad from Burlington, Iowa, and twelve hour's distance from Chicago. In a pleasant neighborhood, with a railroad station of 1,000 inhabitants within a few miles, and an excellent market.

Price $18 per Acre. Eight Dollars in cash—the balance on 10 year's credit, with 6 per cent. interest. This sale being to close an estate for the benefit of infant heirs, a length of credit at a rate of interest seldom given in the West, offers an uncommonly favorable chance to purchasers.

Also 2,000 Acres of choice Farming Land in this vicinity, in lots to suit, surrounded by good farms, and convenient to market. Price from $12 to $20 per Acre, according to locality; one-fourth in cash, the balance in one, two and three years, with 10 per cent. interest.

Also—1,500 Acres of well selected land in Adams Co., Iowa, near the line of the Burlington and Missouri River Railroad. Price $5 per Acre—cash down. Guardians making investments for minors in a State where the value of land increases as rapidly as in Iowa, will find this a favorable opportunity for purchasing.

J. F. TALLANT,

Sept. 3—w4tm1t Burlington, Iowa.

Fine Flowering Bulbs.

ELLWANGER & BARRY have just received from Holland, a large invoice of Flowering Bulbs, including the very finest

HYACINTHS, double and single—all colors.
TULIPS, do. do.
NARCISSUS.
CROCUS, 20 beautiful sorts.
CROWN IMPERIALS, 8 varieties.
LILIES, a large collection.
DOUBLE AND SINGLE SNOW DROPS.
IRIS, many varieties.
AMARYLLIS, &c., &c.

Those who desire a fine display next spring, should plant immediately. All orders filled promptly, and on the most reasonable terms.

ELLWANGER & BARRY,
Mount Hope Nurseries, Rochester, N. Y.
Oct. 1—w2tm1t.

Self Adjusting Door Hangers.

I OFFER my improved Door Hangers to those building or repairing Barns and out-buildings, and claim for them the following advantages:

1. Its cost of constructing and hanging, is less than the common door. 2. The door never sags, nor gets out of place. 3. It is never slammed with the wind. 4. It is never obstructed by snow. 5. It will last as long as any part of the building. 6. It shuts more closely than the ordinary door, preventing the snow from driving in and excluding the cold. 7. The SELF ADJUSTING principle, which allows the door to be opened and closed at all times, however large, with ease to the operator, all cramping being prevented. 8. It is made larger than the door-way, entirely protecting the posts and sill from decay; it can be made highly ornamental, and hung externally or internally. Posts need not be larger than a common stud, as no strain will come directly upon them. Full directions for putting up will accompany each sett. Warranted a better and more substantial Door Hanger, than any other offered to the public, and to give satisfaction to the purchaser, of they can be returned and the money will be refunded.

All orders should be addressed to

A. W. MORSE,
Patentee and Manufacturer.
Aug. 27—w1tm1t Eaton, Madison Co., N. Y.

HORSE POWERS,
THRESHING MACHINES,
EXCELSIOR FAN MILLS,

AT the North River Agricultural Warehouse.

GRIFFING BROTHER & CO.,
Aug. 20—w8tm2t 60 Courtlandt-St., New-York.

ALBANY TILE WORKS.

Corner of Patroon and Knox Streets, Albany, N. Y

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small discount will be made.

HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches rise,	$12	per 1000
3½ " "	15	"
4½ " "	18	"
5½ " "	40	"
6½ " "	60	"
8 " "	80	"

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches rise,	$12	per 1000
3 " "	18	"
4 " "	40	"
5 " "	60	"
6 " "	80	"

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Albany, N. Y.
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y

SHORT-HORNS.

I HAVE in my stables three young BULLS, two of which I offer for sale, viz:

"HIAWATHA," 1663—red—calved November, 1855; bred by Sam'l Thorne, Esq. A first-class animal in every respect, with extraordinary good handling and quality—Price $1,000.

"KNIGHT OF GWYNNE."—mostly red—calved May, 1857; bred by Sam'l Thorne, Esq.; got by Grand Duke 2d, (12961) out of Dinah Gwynne, by Balco (9918.) For farther pedigrees, see 2d vol. A. H. B., p. 352—Price $500.

Also several Cows and Heifers in calf to Hiawatha, at from $200 to $500.

"CRICKET"—roan—calved June, 1857; got by Double Duke, 1451½, out of Crumie—see 3d vol. A. H. B., p. 357—Price $200.

My farm is but five minutes walk from Sennett Station of New-York Central R. R., (old road,) and five miles east of Auburn.

J. R. PAGE,
Aug. 27—w4tm1t Sennett, N. Y.

PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

R. L. ALLEN, 189 & 191 Water-st., New-York.

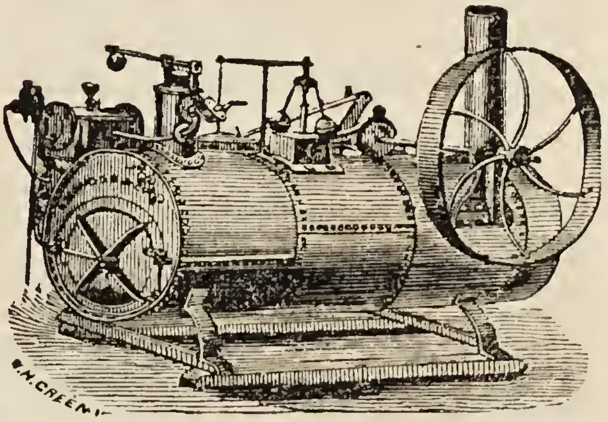
☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.

Feb. 26—weow&mtf

Berkshire Pigs for Sale!

WARRANTED of pure breed, and at a low figure.

WILLIAM J. PETTEE,
June 11—w&mtf Lakevill, eConn.



Wood's Portable Steam Engine Works,

Eaton, Madison Co., N. Y.

A. N. WOOD & CO.

Practical Machinists, and Builders of their Celebrated

PORTABLE STEAM ENGINES

For Farm and Mechanical Purposes.

WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

PRICE LIST FOR 1857.

Horse power	estimate weight	space occupied	cash price	fly-wheel diameter	face of wheel
2½	2000 lb.	4 by 5 ft.	$240	39 in.	5½ in.
3	2200 "	5 by 5 "	290	39 "	5½ "
4	2500 "	7 by 5 "	355	40 "	6 "
6	3600 "	7 by 5 "	550	44 "	7 "
8	4800 "	9 by 6½ "	700	48 "	8 "
10	6000 "	10 by 6½ "	875	60 "	8 "
12	7500 "	14 by 6½ "	1050	72 "	12 "

The above price includes boxing and delivered on board cars.

A. N. WOOD & CO.
April 23—wtf—June 1—mft.

250,000 Pear Trees,

STANDARDS AND DWARF. For sale by
GEO. W. WILSON,
Sept. 10w1tm1t. Malden, Mass.

Speckled Dorkings.

I HAVE a few spring Chickens for sale at $10 per half dozen. Several of the Cocks are rose or double-combed.
J. R. PAGE,
Aug. 27—w4tm1t Sennett, N. Y.

Choice Farm Lands for Sale.

THE ILLINOIS CENTRAL R. R. COMPANY,

IS NOW PREPARED TO SELL ABOUT

1,500,000 ACRES
OF CHOICE FARMING LANDS,

In Tracts of 40 Acres and upwards, on Long Credits and at Low Rates of Interest.

THESE Lands were granted by the Government to aid in the construction of this Road, and are among the richest and most fertile in the world. They extend from north-east and north-west, through the middle of the State, to the extreme south, and include every variety of climate and productions found between those parallels of latitude. The northern portion is chiefly prairie, interspersed with fine groves, and in the middle and southern sections timber predominates, alternating with beautiful prairies and openings.

The climate is more healthy, mild and equable, than any other part of the country—the air is pure and bracing, while living streams and springs of excellent water abound.

Bituminous Coal is extensively mined, and supplies a cheap and desirable fuel, being furnished at many points at $2 to $4 per ton—and wood can be had at the same rate per cord.

Building Stone of excellent quality also abounds, which can be procured for little more than the expense of transportation.

The great fertility of these lands, which are a black rich mould from two to five feet deep, and gently rolling,—their contiguity to this Road, by which every facility is furnished for travel and transportation, to the principal markets North, South, East, West, and the economy with which they can be cultivated, render them the most valuable investment that can be found; and present the most favorable opportunity for persons of industrious habits and small means to acquire a comfortable independence in a few years.

Chicago is now the greatest grain market in the world—and the facility and economy with which the products of these lands can be transported to that market, make them much more profitable at the prices asked, than those more remote at government rates,—as the additional cost of transportation is a perpetual tax on the latter, which must be borne by the producer, in the reduced price he receives for his grain, &c.

The Title is perfect—and when the final payments are made, Deeds are executed by the Trustees appointed by the State, and in whom the title is vested, to the purchasers, which convey to them absolute titles in Fee Simple, free and clear of every incumbrance, lien or mortgage.

The Prices are from $6 to $30—Interest only 3 pr. ct.

Twenty per cent. will be deducted from the Credit Price for Cash.

Those who purchase on long credit, give notes payable in 2, 3, 4, 5 and 6 years after date, and are required to improve one-tenth annually for five years, so as to have one-half the land under cultivation, at the end of that time.

Competent Surveyors will accompany those who wish to examine these Lands, free of charge, and aid them in making selections.

The lands remaining unsold are as rich and valuable as those which have been disposed of.

SECTIONAL MAPS

Will be sent to any one who will enclose fifty cents in Postage Stamps, and Books or Pamphlets, containing numerous instances of successful farming, signed by respectable and well-known farmers living in the neighborhood of the Railroad Lands, throughout the State—also the cost of fencing, price of cattle, expense of harvesting, threshing, etc.,—or any other information—will be cheerfully given on application, either personally or by letter, in English, French or German, addressed to

JOHN WILSON,
Land Commissioner of the Ill. Central R. R. Co.
Office in Illinois Central Railroad Depot, Chicago Ill.
April 9—w&m6m

Notice Extraordinary.

To Farmers who consult their Interest and Comfort.

THE CELEBRATED EXCELSIOR HORSE POWER Thresher and Separator, manufactured by the subscriber, has been awarded the FIRST PREMIUM by the United States Agricultural Society at their great exhibition in Louisville, Ky., Sept. 1, 2, 3, 4 and 5, 1857. It was tested in competition with all the best Powers made in this country, in presence of the judges, and was pronounced THE BEST, as its name indicates. Those wishing these machines will apply soon, as the demand is large and the supply limited. Get the best, which is always the cheapest.

Agents wanted where none are established, and if well recommended, a liberal commission will be given them.

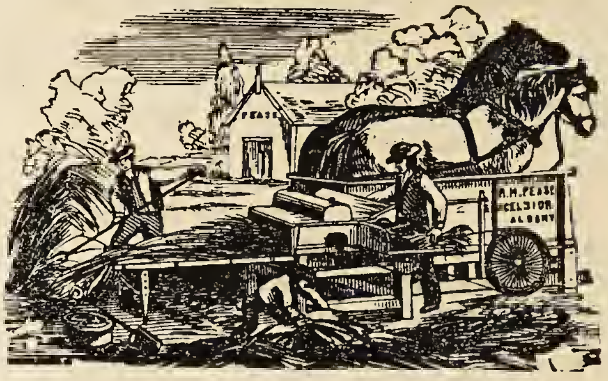
Descriptive Circulars furnished on application, GRATIS
For further particulars address RICH. H. PEASE,
Sept. 17—w13tm3t. Albany, N. Y

SENT POST-FREE, TO ANY POST-OFFICE.

THE ILLUSTRATED HYDROPATHIC ENCYCLOPEDIA: A Complete System of Hydropathy and Hygiene. By R. T. TRALL, M.D. One large volume with nearly 1,000 pages. Illustrated with 300 Engravings. Price, prepaid by Mail, $3. Address

FOWLER & WELLS,
No. 308 Broadway, N. Y.

"The most comprehensive and popular work yet published on Water-Cure. Of all the publications which have attained such a wide popularity, as issued by FOWLER & WELLS, none are more adapted to general utility than this rich, comprehensive, and well-arranged Encyclopedia."—[N. Y. Tribune. Sept. 17—w3tm1t



Excelsior Ag. Works, Albany, N.Y.

RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered. RICH'D H. PEASE.

CERTIFICATES.

BEDFORD CO. Tenn. Oct. 15, 1856.

We the undersigned hereby certify that we have purchased of the Agent of the Manufacturer, Richard H. Pease of Albany, New-York, his "Excelsior Horse Power and Thresher," and having used them a sufficient length of time to convince us of their utility and durability, feel no hesitancy in saying that in our opinion they are the very best of which we have any knowledge, they having performed to our entire satisfaction. Given under our hand, day and date above.

GARRET PHILLIPS,
M. L. DISMUKES,
THOS. LIPSCOMB,
WM. A. ALLEN,
J. T. ARNOLD,
W. W. HASTINGS,
JAMES MULLINS.
BENJ. GARRETT,
ALEX. SANDERS.
WM. M. GOGGIN,
ALEX. EAKIN,
REDDING GEORGE,
J. J. KOONCE,
W. C. J. BROWN,
H. D. DAVIDSON.

EAST GREENWICH, N. Y., Feb. 25, 1857

MR. R. H. PEASE—I received the Two Horse Power, Thresher and Separator I purchased of you, and put it to work to test it. I have threshed 2,500 bushels of wheat, oats and rye with them, without a break of any kind. It works to my entire satisfaction, and I think there is no better machine made. WM. MCNEIL.

May 14—w&mtf.

New Canaan Nurseries.

THE subscribers would invite attention to their Nursery stock, consisting of
100,000 Apple Trees, from two to five feet from the bud or graft.
40,000 Peach, one year from the bud.
20,000 do. two do. do.
Pear Trees, Standard and Dwarf. Cherry, Plum, Apricot and Quince Trees. Also 20,000 American Arborvitæs, from three to five feet high, (twice transplanted.) Norway Spruce and other ornamental trees. Grape vines, Raspberry, Blackberry and Gooseberry plants. Currants (of the popular varieties,) &c., &c. Address

STEPHEN HOYT & CO.,
Sept. 10—w8tm1t. New Canaan, Ct.

Plum and Cherry Seedlings.

100,000 Prime Mazzard Cherry Seedlings for sale at $5 per M. No charge for package when 5,000 are taken.

15,000 strong two years old Plum Seedlings, at $10 per M.

E. G. STUDLEY,
Aug. 13—w2tm2t. Claverack, Col. Co., N. Y.

Pacific Ocean Guano.

200 TONS, containing 6 per cent. of ammonia, and 40 per cent. of phosphates—in quantities to suit purchasers.

A. LONGETT,
Sept. 10—w4tm1t. 34 Cliff-st., New-York.

FOR SALE!

Cahoon's Seedling Pie Plant.

I WILL securely pack in boxes, and forward according to directions, Ten Roots for $5; Five Roots for $3; One Root for $1; by the Hundred, $40. Cash, in all cases, to be sent with the order.

TESTIMONIALS.

GRAND RAPIDS, (Mich.,) July 17, 1857.

MR. CAHOON—Dear Sir—I have been quite successful with Pie Plant obtained from you last spring, and want to make a few inquiries about its culture. The leaves on some of the stalks are 20 feet in circumference, and are still growing; some of the stalks are seven inches in circumference and 2 feet in length. You may expect a good many orders from here next spring.

Is it advisable to cut it much the first year? and do you CUT or PULL it? Some of the roots throw out a great many stalks—would it increase the size of the stalks to thin them out to 4 or 5 in a hill? and do you keep the seed stalks cut back?

Please answer my inquiries, and oblige, Yours, &c.,
F. B. GILBERT.

ANSWERS TO QUESTIONS IN THE ABOVE LETTER.

1. Cut very little. 2. Pull it with quick side jerk. 3. It will. 4. I do. [B. P. CAHOON.

MAMMOTH PIE PLANT.—We are indebted to T. Newell, Esq., for specimens of Pie Plant that exceed anything of the kind in size, that we ever looked upon. One single root has, at one cutting, produced forty-eight pounds! A single leaf, it is said, has measured twenty-two feet around! The stalks before us will weigh about five lbs. each. Some, it is stated, have weighed eight. They were obtained by Mr. Newell from Mr. B. P. Cahoon, of Kenosha, Wisconsin, who puts them up in boxes at a dollar a root, or ten roots for five dollars. We hope they will be freely introduced to this vicinity.—*New-Haven Daily Palladium, July* 21, 1857.

CAHOON'S SEEDLING PIE PLANT.—We have just received from B. P. CAHOON, of Kenosha, Wis., a box containing fourteen stalks of the variety of Rhubarb originated by him, which are fully equal in size and flavor to those noticed by us last year. One or two of them has the leaf still attached, the main ribs on the back of which are nearly as large as ordinary stalks. When we add that each stalk of several of the smaller ones tried by us, would make three good-sized pies, the fact will perhaps go as far as their dimensions in feet and inches. Mr. C. very justly remarks in the accompanying letter: "The article is now rather out of date in your market, but here in the West where we have but little fruit, it is highly prized, and above all other varieties, for the roots send up new leaf stalks till November. It is as fresh and green in October as in May, when grown on moist land and on roots of one and two years old."—*Country Gentleman. (Albany. N. Y.,) August 13th*, 1857.

B. P. CAHOON,
Sept. 3—w3tm1t Agent for G. LEWIS, Kenosha, Wis.

PERUVIAN GUANO,
Government Weight and Brand.
COLUMBIAN GUANO,
Government Weight and Brand.
SUPERPHOSPHATE OF LIME.
MANIPULATED GUANO NUMBER 1.
BONE DUST.

For sale by A. LONGETT, 34 Cliff Street,
Aug. 1—m3t. Corner of Fulton, New-York.

PERUVIAN GUANO,
Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag, by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME.—Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS, all of which are guaranteed of the best and most reliable quality.

AGRICULTURAL AND HORTICULTURAL IMPLEMENTS, FIELD AND GARDEN SEEDS,

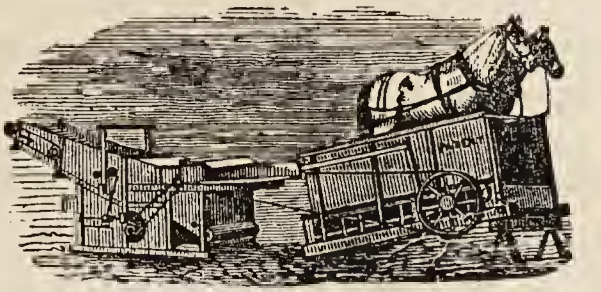
A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

R. L. ALLEN,
Feb. 26—weow&mtf 189 & 191 Water-st., New-York.

Gould's Patent Premium Corn Husker.
FOR THE MILLION.

THESE HUSKERS have gained a reputation surpassed by no invention of the age, in proportion to the time they have been before the public. Over 75,000 were sold last season. They are a saving of one-third labor and all sore fingers. Price, sent to any address pre-paid, only 25 cents—10 for $2. Orders covering $5, at wholesale prices. Money refunded for all returned at the close of the season. Circulars sent on application. Address E. NASH,
Aug. 27—w&m1t.* Auburn, N. Y.



THE SCHENECTADY AG. WORKS.

Manufacture Improved Railway Horse Powers, Threshers and Separators Threshers and Winnowers, Combined Clover Hullers, and Sawing Machines.

THE undersigned having been over twenty years engaged in building Horse Powers and Threshing Machines, feel confident from past experience and the numerous testimonials we are receiving from all parts of the country, of the superiority of our Machines, that we can give satisfaction to all who may favor us with their orders. Our HORSE POWERS are made substantial, and so geared that it requires the team to travel only about $1\frac{3}{4}$ miles per hour, thereby making them suitable to work either horses or cattle on them. Our THRESHERS and THRESHERS AND WINNOWERS are so constructed as to discharge all the grain and dust through the Machine, and not into the feeder's face, as is usual, with other kinds. The Thresher and Winnower has a revolving wire separator, which does the work more perfect than can be done any other way.

The SEPARATOR (riddle) has a fork or straw-shaker, which shakes the grain out of the straw as it passes from the Thresher.

We warrant these Machines to suit the purchaser upon trial, or they can be returned and the money will be refunded. G. WESTINGHOUSE & CO.,
March 5—woam&m5t. Schenectady, N. Y

Contents of this Number.

THE FARM.

Notes in Steuben County, ... 297
Topping and Harvesting Corn, ... 299
Putting up Lightning Rods, ... 300
Water Rams, ... 302
Riversdale—Farm of C. B. Calvert, Esq., by E. L. R. 303
Notes about the West, ... 305
Cutting Fodder for Horses and Cattle, by J. W: Colburn, ... 306
Winegar's Water Elevator, ... 306
Notes in Albany County, ... 309
A Princely Prairie Farm, ... 309
Notes from Foreign Ag. Journals, ... 310
Patato Boiler, by C. E. Goodrich, ... 310
Plowing by Steam, ... 311
Remedy for Worms on Hop Vines, by H. A. J., ... 311
Morse's Self Adjusting Door Hanger, ... 312
Experiments with Manure, by J. L. Edgerton, ... 312
U. S. Ag. Society's Meeting at Louisville, ... 313
Notes of a Travelling Farmer, ... 315
Ice Houses—Wheat, Sorghum, &c., by L. B., ... 316
Selecting Seed Corn—Timely Hint, ... 317
Inquiries and Answers, ... 318
Albany County Fair, ... 320
Notes for the Month, ... 321
Value of Hay Caps—How Made, by W. H. Denning, 323
Chinese Sugar Cane, by E. Leffingwell, ... 323
How to Build an Ice House, by Zero, ... 33
A New Winnowing Machine, ... 324

THE GRAZIER.

Scours in Cows, Calves or Cattle, ... 307
Apples for Stock, ... 308
Experiment in Fattening Pigs, by D. C, ... 312
Sweeny, its Cause and Cure, by W. T. Hamilton, ... 317
Cure for Colic in Horses, by W., ... 317
Sale of Stock at Moreton Lodge, ... 320

THE HORTICULTURIST.

Fruits for Severe Climates, ... 301
Cahoon's Seedling Pie Plant, ... 301
Over Hanging Fruit Trees, by W. N., ... 302
Remedy for Unfruitful Trees, ... 302
Apples for Stock, ... 308
Remedy for Lice on Cabbage, by L. L. W., ... 308
Blue Hydrangeas, ... 308
Variety in Fruits, ... 323
Fruit-Growers Society of Western New-York, ... 324

THE APIARY.

Best Books on Bees, ... 302

THE POULTRY-YARD.

Leghorn Fowls, by R. W. Pearsall, ... 307

DOMESTIC ECONOMY.

American Butter Worker, ... 308
Washing and Sowing Machines, ... 312
How to Make Vinegar. ... 323

ILLUSTRATIONS.

Morse's Self Adjusting Door Hanger, ... 312

The Best Books to Sell.

BOOKSELLERS, Agents, and Newsmen will find a quick sale for those new Hand-Books just published: HOW TO WRITE—HOW TO TALK—HOW TO BEHAVE—and HOW TO DO BUSINESS. Price, free by mail, only 30 cents each, or the four in paper, $1. Complete in one large gilt vol., $1.50. now ready. Try them.

Address FOWLER & WELLS.
Sept. 10—w4tm1t 308 Broadway, New-York.

Newman's Thornless Blackberry.

FINELY ROOTED and strong plants of this new and valuable variety, will be sent out this season at $4 per Dozen; $10 per Fifty; $18 per Hundred; $130 per Thousand. Address A. A. BENSEL,
Milton, Ulster Co., N. Y.,
Who is sole Agent for the sale of the plants.

☞ True Hudson River Antwerp Raspberry plants by the Thousand. Oct. 1—w4tm1t*

To Seedsmen, Planters, &c.

THORBURN'S Preliminary Wholesale Priced List of **Vegetable and Agricultural Seeds, Dutch Bulbous Roots, Double Dahlias, &c.**, for the Fall of 1857, is just published, and will be mailed to dealers and others requiring seeds in quantities, enclosing a stamp for return postage.

This year's seeds, so far as harvested, are of prime quality, generally abundant, and prices correspondingly moderate. J. M. THORBURN & CO., Seedsmen, &c.,
Aug. 13—weow4t—m2t. 15 John St., New-York.

1858—Now Ready!!

THE ILLUSTRATED ANNUAL REGISTER OF RURAL AFFAIRS for 1858, is now ready, and will be sent out as fast as we can fill the orders already received. Several thousand copies will already have been put in circulation by the time this reaches the reader. For Abstract of Contents see previous numbers of the Country Gentleman. Price, paper covers, 25 cents—$2 per dozen. Bound in muslin, 50 cents. (Bound copies will be ready next week.)

"Rural Affairs"—Volume One.

We are preparing a new Edition of the Register of Rural Affairs, for the years 1855, 1856, and 1857, in one handsome volume. Particulars in future announcements. The Calendar and Advertising pages of these three years will now be omitted, and larger and very much better paper used—the whole in muslin binding for One Dollar.

Address LUTHER TUCKER & SON,
Albany, N Y.

HIGHLAND NURSERIES,

Newburg, N. Y.

Formerly A. J. DOWNING & CO.

THE subscribers, in calling the attention of the public to their stock for autumn planting, beg leave to say that at no former time have they been so well prepared to meet the constantly increasing demand for trees, &c., &c., as at present.

IN THE DEPARTMENT OF FRUITS, their stock of trees of Apples, Pears, Cherries, Peaches, Apricots, Nectarines, &c.; also, strong plants of Grape-vines, Gooseberries, Currants, Raspberries, Strawberries, &c., &c., as well as all the smaller and miscellaneous fruits, are of the best quality as regards size and thriftiness, and include all the best varieties in cultivation.

THE ORNAMENTAL DEPARTMENT is also full and complete in all the leading varieties of Evergreen and Deciduous Trees and Shrubs, many of which are of extra size, suitable for street planting, or giving immediate effect around newly erected residences.

A fine collection of Roses; also, Hedge Plants, Asparagus, and Rhubarb Roots, &c., &c., and all articles that are usually to be had in the trade. For further particulars, see Catalogue, a copy of which will be mailed to applicants on enclosing a Postage Stamp to prepay the same.

Orders by mail promptly attended to, and packed in the best manner, and forwarded as directed, but after delivery to forwarders at the risk of purchasers.

Newburg, Oct. 1—weow3tm1t A. SAUL & CO.

SAMUEL MOULSON,

OF THE

Old Rochester Nurseries,

Rochester, N. Y.,

HAS just issued his "List of Leading Items" for the fall of 1857, which contains an exact inventory of the articles offered, with their heights and prices; and also for Nurserymen and Dealers, a "Trade List" for the fall of 1857,—either of which will be forwarded free to those enclosing Stamps for prepayment.

For some of the items offered, see advertisement in the Horticulturist and Hovey's Magazine for September, 1857.

Oct. 1—m1t

LUTHER TUCKER & SON, ALBANY, N. Y.,

PUBLISH

The COUNTRY GENTLEMAN—Weekly—a Journal for the Farm, the Garden and the Fireside. New Volumes commence the first of January and July—each number consisting of **Sixteen Large Quarto Pages.** Two Dollars per annum. "Without question The Best Agricultural Paper in the United States." "By Far, at the head of the Agricultural Journals of the United States."

THE CULTIVATOR—Monthly—a Magazine of thirty-two octavo pages, now in its **twenty-third** year, and to commence with January next, the 4th volume of its Third Series. It is now "made up" from the Country Gentleman, and though furnished at the low price of Fifty Cents a year, continues to maintain the rank it has ever held as the most **Practical Farmer's Paper,** and the ablest Scientific Authority in its peculiar sphere.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD To Improve the Soil and the Mind. SERIES

Vol. V. ALBANY, NOVEMBER, 1857. No. XI.

To our Agents and Friends—Old and New.

We ask your attention once more, as the year nears its close, to the old subject of effort in the cause of Agricultural Progress. How all other interests hinge upon this of tilling the soil, and how universal a benefit is conferred by rendering the Farmers' labors more productive, we do not now need to remind any man. And every observer of our Agriculture, during the last quarter of a century, must ascribe much of its evident advancement to its Literature, which, in that period, has constantly become more and more an established institution. There are still, however, few if any localities in which the diffusion of reliable Agricultural reading would not bring about improvements; and one placed in a position to see what some farmers can do and are doing, to enrich themselves and the country, is astonished indeed to find so large a majority yet persisting in old ways, exhausting their soils and wasting the resources so bountifully afforded them by Nature! The best farmers are always the best readers; and through their aid we seek to reach others. We lay before you our Prospectuses for another year, renewing our acknowledgments for past assistance, and trusting that the character of our Journals has proved worthy of their cause, and of your further services in promoting the extended appreciation of both.

Every year we receive apologies for small lists of subscribers, because the ground had been pre-occupied by other newspapers, miscellaneous journals, &c. We are anxious on this account, to induce our Agents to take the field earlier than usual; and to facilitate their operations, make the following proposition, while we also offer a List of Prizes to be decided January 1st, 1858, in addition to those open as usual for competition until spring.

Proposition for Immediate Exertions.

We have just issued the Annual Register of Rural Affairs for 1858, some months earlier than ever before. As will be seen by our Prospectuses, we shall send it as our customary New-Year's Present to Members of Clubs, for either The Country Gentleman or The Cultivator, at the prices there named. *Now if our Agents will immediately go to work, and send us the names as fast as they get them, for the papers for* 1858, *they need only remit each time the postage,* (*two cents per copy,*) *which we shall be obliged to prepay on the* Register. *When the list is made as large as possible, a draft can then be sent us for the whole amount at once, just in time to reach us before January* 1*st, when the Premiums are to be decided.* The results effected will be, that the Agent can take advantage of every occasion that presents itself for the next three months, to obtain subscribers; that the subscriber *immediately receives his* Register, as an earnest of the subscription itself; that the Agent, if he chooses, need not require payment, (more than for the postage,) until he has the Register to deliver, and that now, while the means of intercourse are easy, and the ground still uncanvassed by a hundred others, he can work with much less trouble, and far more satisfactory results.

If our friends see the force of these views, we shall feel under renewed obligations to them if they will "act accordingly." *Specimen Numbers of our Journals, Prospectuses, and a copy of the* Register *for* 1858, *for use in canvassing for subscriptions, will be sent on application.* We have already sent out copies of the Register to our Agents; if any *have been omitted*, will they please inform us?

We need not add that we hope for a largely increased subscription list for 1858. We shall continue to make every effort, and to spare no expense, to maintain the reputation of our Journals, both Weekly and Monthly, as the Best of their Class and Price in the country. You can do much to assist us by exerting your influence in their favor, and by devoting an hour now and then during the coming winter, to place the subject fairly before the community in which you live.

ASSISTANTS AND SUBSTITUTES.

If you will ask each subscriber, on receipt of his Register, to show it to three or four neighbors, and hand their names over to you if it pleases them, you can make every additional one an Assistant in enlarging the List. And if circumstances prevent your taking a prominent part personally in obtaining subscriptions, may we not depend upon your placing the mat-

TER IN THE HANDS OF SOME ONE who will take an interest in it, and who will make an EFFICIENT AND RELIABLE AGENT.

JANUARY PREMIUMS.

We propose to award the following Cash Prizes for the largest amounts of cash subscriptions to our Journals we receive up to January 1st. Our object has been to make the number of Premiums as large as possible, that ALL may take an interest in competing. *We shall hereafter offer another List at least of equal extent* open for competition up to April 10th. This will make the aggregate amount larger, and the sums severally more liberal than we have ever before offered.

1. For the largest amount of cash subscriptions to our Journals, at the lowest Club Rates of 52 cents per copy for Cultivator and Register, and $1.65 per copy for The Country Gentleman and Register, received at this office, January 1st, or previously, we will pay, ... TWENTY-FIVE DOLLARS.
2. For the TWO next largest amounts, each, TWENTY DOLLARS.
3. For the THREE next largest amounts, each, FIFTEEN DOLLARS.
4. For the FOUR next largest amounts, each, TEN DOLLARS.
5. For the FIVE next largest amounts, each, FIVE DOLLARS.

IN ALL FIFTEEN CASH PRIZES AS NEW YEAR'S PRESENTS TO OUR AGENTS, AND AS MANY MORE IN PROSPECT.

CANADA SUBSCRIBERS

Will remember that we are obliged to charge them *Six Cents a Copy more* for the Cultivator, and *Twenty-Six Cents a Copy more* for the Country Gentleman, than the prices above named, to cover American Postage to the lines.

The Illustrated Annual Register of Rural Affairs for 1858.

Number Four of the Rural Register will be found in no respect inferior to its predecessors. More has been expended upon the Illustrations it contains than on any previous number. Its contents cover a wide variety of subjects, and embrace a vast store of useful information, rendering it a compendous hand book for every owner of a country place, with chapters of peculiar interest to those about to Build, or to Improve; for Bee Keepers, Fruit Growers, those who wish to know what Fruits to select, and for all who cultivate Flowers or Vegetables, have Barns or Granaries to erect, Farms to till and enrich, Gardens and Lawns to beautify, Domestic Animals to procure and care for, or Households to superintend. 130 ENGRAVINGS—PRICE 25 CENTS.

☞ Will our Agents please remember that we send One Dozen, post-paid, for Two Dollars! They will meet a ready sale in every neighborhood. Send for a Dozen, and try the experiment.

"RURAL AFFAIRS"---Volume One.

Under this title we have issued a new edition of the "Annual Register of Rural Affairs," for 1855, 1856, and 1857, in one volume, handsomely bound—price One Dollar. The Calendar pages and advertisements which originally appeared, are now omitted, but the difference in size is more than made up in the weight and quality of the paper. It forms the most beautiful and complete Museum on all Rural Subjects, ever issued at the price, and contains 440 Engravings!

TERMS FOR 1858.

The Country Gentleman contains 16 large pages every week—making two yearly volumes of over 400 pages each! furnished at the low price of $2 a year, or $2.50 when not paid in advance. Subscriptions commence at any time.

The Country Gentleman and the Annual Register.

The price of a Single Copy of each, to one person, is $2.25; Two Copies, $4.00; Four Copies, $7.08; Eight Copies, $13.16; and any larger number at the same rate, which includes the Postage on the Register. Where, however, the subscribers are already supplied with the Register, or do not wish it, we will send the Country Gentleman alone as follows:—Three Copies for $5; Five Copies, $8; Ten Copies, $15. New Volumes begin with July and January, each year—the 11th commencing with January 1, 1858. Subscribers in the British Provinces will add Twenty-Six Cents a Year to the above Terms, to cover United States Postage to the Canada Lines.

The Cultivator and Register.

The price of a Single Copy of the Cultivator is 50 Cents. As the new P. O. Law obliges us to prepay Postage on the Register to Clubs, we have to add Two Cents to our Terms, for this purpose, as follows:

Ten Copies of The Cultivator, and Ten of the Rural Register, ...	$5.20
Twenty Copies of the Cultivator, and Twenty of the Rural Register, (and one of each free to the Sender of the Club,)	10.42

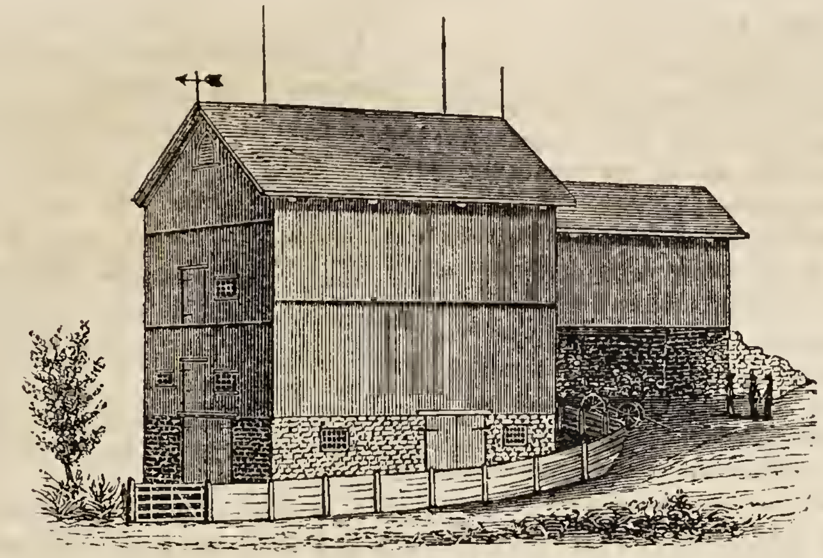
Subscribers in the British Provinces will add Six Cents each to the above Terms, to cover United States Postage to the lines. Ten Copies of The Cultivator and Register will be $5.80; and Twenty, $11.68.

L. TUCKER & SON.

Culture of the Onion.

Eds. Cult. and Co. Gent.—For the benefit of many of your subscribers, I will give you my experience and never failing method of raising onions. It is well known that onions cannot be raised from black seed in various localities. The cause is that the fish worm and grub are the occupants of the soil, and unless they are driven away from the root of the onion, it is very obvious that they will destroy it. My method in raising onions from black seed, is to plant the seed in rows 12 inches apart, raising a mold between the rows about two inches high, then digging a small trench on the top of the mold about half an inch deep, and fill with salt. This proves a preventive, and a never failing remedy. The salt dissolves and leaches in the ground about the roots of the onions, and is too strong a food for these visitors, and they will soon disappear. For more positive proof, just give it a trial. Calvin R. C. Masten.

Cream Hill, Washington Hollow.



WM. CARMAN'S SHEEP BARN.

A Sheep Barn.

On a recent visit at the residence of William Carman, of Hector, Tompkins Co., N. Y., we were much pleased with a large hay and sheep barn he had erected not long since, and for the benefit of our readers we furnish a view and description.

It is three stories high—the dimensions are 34 by 50 feet—the bridge over the entrance is 14 by 32 feet, and the height to the eaves is 44 feet. It is built on the side of a hill, which forms one of the banks of a narrow valley through which a stream flows, the basement opening into this hollow, while the upper part is entered from the level ground above by means of the covered bridge.

The basement, built of solid stone masonry, is nine feet high. It is wholly devoted to the winter feeding of sheep, a line of racks extending around the exterior, and the animals occupying the central part, as shown in the annexed, Fig. 2. A walk with a plank floor, three feet wide, passes around between the racks and the walls, and enables the attendant to fill the racks with ease. A shute on each side, 3 feet square, extends from over these walks to the top of the barn; into these the hay is pitched from the mow as it is needed in foddering, and it immediately falls down through the shute to the feeding walk in the basement. These two shutes are placed against the side of the barn, and are capable of opening in front for the easy discharge of the hay, as the bay is lowered.

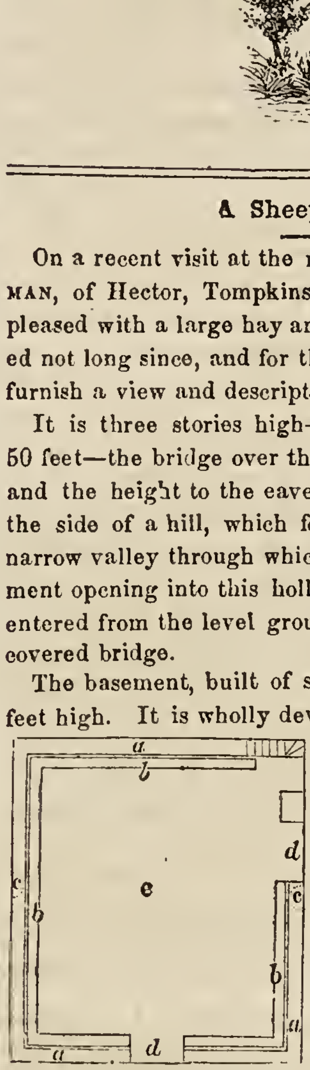


Fig. 2.

a a a, Walk for distributing hay.
b b b, Feeding racks.
c c, Shutes for hay.
d d, Doors.
e, Centre or area for sheep.

Over the basement, bays for hay extend upwards to the roof, and are easily filled from the upper floor in unloading the wagons, which are driven into the barn by the covered bridge. This bridge it 26 feet above the bottom of the basement—the first story or basement being 9 feet, the second 17, and the third 18 up to the eaves. This barn will hold over 100 tons of hay.

This is only one of many buildings on a farm of 350 acres. Our friend Carman has a range of barns in another place, the entire length of which measures 296 feet, besides three carriage houses and horse barns, a hog house, corn crib and other buildings. We observed nothing puny in the improvements—the farm gates are all fourteen feet long and about six feet high—a part of them are hung to posts of quarried stone, which are set in the ground five feet, and are some eight feet above it; and being two feet wide at the surface, do not sag. There are some formidable *stump fences* on the premises, to which some of these gates are hung, and are amply large enough to sustain them. We measured the roots of a single stump as torn from the earth, and found them 18 feet from the centre of the tree. There are many pine trees on the farm 140 to 150 feet high—a rough measurement of two made at the time being nearly or about 150 feet.* One pine tree measured by us (a sort of double one) four feet above the ground, was twenty-one feet in circumference. Indeed everything on the premises seemed of collossal magnitude, and even the owner himself is six feet and two inches high and well proportioned.

* * *

County Fairs.—A correspondent thinks that County Fairs are departing so far from their legitimate object, that their usefulness must soon cease, and urges the establishment of Town Ag. Societies and Town Fairs to take their place. County Fairs were not established, nor is the money appropriated by the State, given to encourage horse racing, female equestrianism, or any other diversion; but if the Fairs are to be converted into places of amusement, instead of meetings for the promotion of improvement—why not, he asks, add "back sword and single-stick playing, sack-racing, climbing a greased pole, chasing a pig with his tail greased, &c.," which he thinks would be quite as diverting and useful as some of the operations now entered upon to draw a crowd to our County Fairs.

☞ The stallion "Membrino Chief," bred, we believe, in Dutchess County, and purchased there two or three years since by Hon. J. B. Clay of Ashland, Ky., has recently been sold by that gentleman to Messrs. Gray and Jones of Woodford County, for $5,000.

---

* A pine was cut on these premises, and made seven saw logs, each sixteen feet long—the lower one was three feet in diameter, and the upper one 18 inches—the rest of the tree was branched. Some of these trees will afford 4,000 feet of lumber—and their value on single acres is estimated in some instances at $300 per acre, while standing.

Sale of Mr. Stone's Cattle.

Morley, St. Lawrence Co., N. Y., Sept. 20, 1857.

Messrs. L. Tucker & Son—Having just returned from Mr. Stone's sale at Guelph, I will, as promised, give some account of the stock and the results of the sale. To begin with, it may be mentioned that Guelph is a well situated, well built, rather straggling town, upon the river Speed, about forty miles north-west of Toronto, and upon the Grand Trunk Railway, now open from Toronto to Stratford. The country between Toronto and Guelph is all apparently fertile and well cultivated; but as you are probably aware that this is one of the most fertile districts of Western Canada, it is only necessary to say that there was nothing to be seen in any way to lessen the opinion of the country that I had formed from hearsay. Residents of the neighborhood spoke of the wheat crops as particularly good, and the *fields* of turnips surpassed any thing I had ever seen.

Mr. Stone's farm is about a mile from the railroad station, and is a fine looking rolling piece of land, rising from the road to the house, and some distance back, and then sloping gradually to a second rise not so high as that upon which his buildings are placed. The stock was, a great deal of it, very much out of condition, probably owing to the fact that the last winter was very severe; fodder very scarce; hay and grain bringing such enormous prices in Toronto, that it must have been almost impossible to procure either for use at home.

The want of condition told very much against many fine animals, particularly Eleventh Duke of Oxford, Prince of the North, and the cow Desdemona, and several others. "Margaret," a magnificent animal, and "Eugenie," a fine young cow, a little coarse haired, were in excellent condition. The calves showed no lack of food or care, and as Mr. Sheldon of Geneva observed, made a most creditable show. The Cotswold rams were a beautiful lot; the Downs small, and not remarkable in any way.

At half after 12, M., the company having lunched, the sale was commenced, and there mustered a very fair number, principally Canadian breeders and neighboring farmers, but with a few from the States, including Mr. P. Lathrop of Massachusetts, with two other New-England men, Mr. Emerson of California, who made several judicious purchases for his farm in San Jose, &c. The best lots were mostly bid in, and Friar John was not offered at all. Mr. Lathrop secured Lady Chesterford, one of the prettiest animals offered, perhaps the choice of the whole herd, and Mr. Emerson "Guelph," a splendid little bull. The principal sales, however, were to Canadians, and the highest prices were obtained after the sale, the most remarkable being that given by Mr. Snell, living near Brampton, for Fairy and her yearling produce Fancy, thirteen hundred dollars.

Annexed is a summary of the sale, which probably is all that you will care about.

Res. yours, T. L. Harison.

To the list furnished by our correspondent, we have added from other sources, and thus made the catalogue of sales as complete as possible:

COWS AND HEIFERS.

1·	Willey 5th, Henry Boulton, Humberford, C. W.	$110
2	Arabella 3d, Edward Jones, Stamford, C. W.,	180
3.	Lily, Dr. Twining, C. W.,	105
4.	White Rose, Saml Hodgkin, Guelph, C. W.,	180
5.	Lily 4, no bid within time.	
6.	Peach Bud, Mr, Buffum, New Hampshire.	100
7.	Strawberry, H. Boulton, Humberford, C. W.,	100
8.	Polyanthus, Ed. Jones, Stamford, C. W.,	250
9.	Fairy, John Snell, Chingacousey,	650
10.	Lady Cramer, bid in.	
11.	Duchess, Mr. Buffum. New Hampshire,	255
12.	Maude, A. Hogge, Guelph,	200
13.	Rose 3d, I. Anderson, West Flamboro' C. W.,	120
14.	Arabella 5th, H. Boulton, C. W.,	200
15.	Pocahontas, A. Hogge,	215
16.	Rose Bud, W. Whitelaw, Guelph,	90
17.	Ruby, H. Boulton, C. W.,	410
18.	Henna, bid in.	
19.	Daphne, T. L. Harison, Morley, N. Y.,	825
20.	Dairymaid, John Dew, Toronto,	120
21.	Bianca, Paoli Lathrop, South Hadley Falls, Mass.	380
22.	Goldfinder, bid in.	200
23.	Beauty of York, H. Boulton, C. W.,	205
24.	Fancy, J. Snell,	650
25.	Miss Maude, John Iles, Puslinch, C. W.	150
26.	Daphne 3, John Dew,	75
27.	Lady Barrington 11th, J. Snell,	140
28.	Rose of Summer, Mr. Emerson, California,	305
29.	Picotee, Mr. Sheldon, Geneva, N. Y.,	75
30.	Margaret, J. Iles, C. W.,	750
31, 32, 33, 35. 36 37,	bid in.	
38.	Lady Chesterford, P. Lathrop, Mass.,	500
39, 40, 41, 42, 43, 45,	bid in or passed.	
44.	Lady Bolton, Mr. Emerson, California.	450
46.	Wallflower 7th, J. Ely West, Springfield, Mass.,	500
47.	Lady Farnham, Mr. Emerson, California,	200
48.	Miss Moreton, bought in,	200

BULLS.

1.	John O'Gaunt 2d, A. Hogge, Puslinch,	550
2.	President, no offer.	
3.	Prince of the North, Thos. Arkill.	200
4.	Twelfth Duke of Oxford bid in.	400
5.	Friar John. not offered.	
6.	11th Duke of Oxford, Mr. Boulton, C. W.,	600
7.	Guelph. Mr. Emerson, California,	650
8.	Third Grand Duke, bid in.	
9.	Grand Turk, Mr. Emerson,	800
10.	John of Guelph, Mr. Emerson, California.	250
11.	3d Duke of Cambridge, Mr. Boulton, C. W.,	430
12.	Cheltenham, T. L. Harrison. Morley, N. Y.,	150
13.	Commodore, J. Ely, Mass.	150
14.	Master Butterfly. James Phin. Waterloo, C. W.,	100
15.	John Bull, Paoli Lathrop, Mass.,	200
16.	John O'Gaunt, 7th, G. Caldwell, Pilkington, C.W.,	100
17.	Duke of Lancaster, bought in,	75
18.	Emperor, James Gowan, Waterloo, C. W.,	50

The Cotswold Rams sold at prices varying from $80 to $160; the purchasers being H. Boulton, Humberford; John Card, Guelph; W. Whitelaw, Guelph; Mr. Buffum, New Hampshire, U. S; Mr. Forster, Credit, C. W.; Thos. Bolton, Guelph; John Snell, Chinguacousy; W. Ewing, Brantford; W. L. Felton, M. P., Sherbroke; H. Tolton, Eramosa; Adam Hume, Puslinch; Evan Macdonald, Guelph; J. Anderson, Flamboro' West.

One Southdown Ram was sold for $76, and one pair of Cotswold Ewe Lambs, $100.

Recapitulation — 44 Cows, Heifers and Calves brought $16,450; average about $373 each.

16 Bulls and Bull Calves brought $5,680, average about $355.

15 Cotswold Rams brought $1,472; 1 Southdown Ram, $76; Pair Cotswold Ewe Lambs, $100.

Total Cows, Heifers, Calves and Bulls, $22,130. Sheep, $1,648. Grand Total, $23,778.

How to Fatten Poultry.

Eds. Co. Gent.—Being a constant reader of your interesting paper, I should be glad to have some of your correspondents inform me how I can fatten my chickens.

I let mine run, and they have about 20 acres to pick on, and are well fed at the henery, but do not get to be in good condition for the table.

I have tried shutting them up, but they lose their appetite—are dull, and poorer than when they have their liberty.

How do the dealers get them into such fine condition as we see them in the market? Boston.

Will not some of our poultry-raisers give us a chapter on the above subject?

Draining with Stone and Tile.

Messrs. Editors—The punctual appearance of your weekly Journal, fat with agricultural information, perpetually reminds me of a promise I made some time since, to give you our experience in draining with stone.

The greater portion of our land is low alluvial bottom, varying from three to four feet in depth, and resting on a clay sub-soil. It was worthless, when purchased, for the growth of any thing but swamp grass, and impassable to the plow. But draining has transformed what was a duck pond and skating ground, into fertile meadow, solid enough for the wheel of a mower or the plow.

We attempted, studying economy of outlay, to drain the wettest parts first, by cutting the drains with sufficient fall to the clay, then laying a culvert of cobble stones, half as large again as a brick, covering with flat ones, and then filling up with such small stones as would damage a mowing machine, to within eighteen inches of the top; over these, a layer of straw before the dirt was thrown in. We have an excellent, without an abrupt, fall, the land sloping with easy inclination to the central open ditch.

After having tried rubble drain in short lengths, where the water leaked rather than ran, it proves useless for permanent value. So also did that laid one stone upright and the other resting on it, lean-to fashion; the pressure probably from above and the side, causing it to slip and choke the channel. At any rate, after repeated bursts, we had to return to the culvert again as the only successful method. Farthermore, all stone drains, it must be remembered, are more or less liable, on arable land, to perforations by mice in search of water for winter uses, which causes a leakage in a strong pressure from the current above, if not a burst. And it is our advice, deduced from an experience in two and a half miles of stone drain, to use, where practicable, tile as the most profitable in the end. Stone drains answer a good pioneer purpose; for, having drained once, no man will abandon it, till he he has drained to the end. And where land is laid lastingly to meadow, stone drains answer well, as the toughness of the sod prevents the upward pressure of the water that in plowed ground soon drills for itself a deep and disagreeable channel.

We are now putting in tile on flat bottoms with but little fall, for, confining the water to a narrower and smoother channel, and occupying less height, they allow a better drainage and a deeper tilth. The horse-shoe, we prefer to the sole tile, where there is a hard bottom, as there is no possibility of any impediment to the movement of the current, which is apt to occur in slight inequality of the bed by raising one sole a trifle higher than another. James Arkell. *Canajoharie, N. Y.*

Ohio State Fair.

[Correspondence of the Country Gentleman.]

The Fair of the Ohio State Board of Agriculture opened at Cincinnati on the 15th Sept., and has just terminated. The grounds were large and easy of access, and lay immediately adjoining the city. The number of entries, both of horses and cattle, was said to be very much larger than they had ever had before, and probably the show was the best that has ever been held in that State.

In cattle, the Short-Horns outnumbered by far all the other breeds, though the Herefords and Devons were well represented. Considerable stock was there from Kentucky, and a little from this State. Messrs. R. A. Alexander, G. M. Bedford, B. C. Bedford, Chas. T. Garrard and others, had Short-Horns from the former State, and Mr. W. H. Sotham represented this with his Herefords. The Ohio breeders were also out in full force with selections from their different herds.

The examination of stock took place on Wednesday, and commenced with the Devons. The herds of Mr. C. Ely of Elyria, gained the greatest number of prizes.

In Herefords, the prizes were divided between Messrs. Aston, Humphreys, and Sotham. Mr Aston showed a remarkably fine two-year-old bull, and a very superior aged cow, both of which carried the first prize in their respective classes.

The aged bull ring of Short-Horns was very good. The first prize was taken by Mr. Clark's "New-Year's Day," and the second by Mr. Alexander's "Sirius." The competition was very close, and the judges were a long time in deciding. In the two-year-old class, Mr. Garrard's "Djalma" was first. Mr. Alexander's bull "Albion" carried the prize in the yearling ring. He is a very superior animal, and has never yet been beaten. Mr. Corwin's bull was second.

The aged cow-ring was a very superior one. There were 22 entries, containing the choice animals of both Ohio and Kentucky. Mr. Alexander's "Duchess of Athol" carried the 1st prize, and his cow "Vellum" the 2d. Mr. Dun's heifer won in the 2 year old ring, Mr. G. M. Bedford's "Ivanora" being 2d. The 1st and 2d prizes in yearlings were taken by Mr. Alexander's twin "Mazourkas," two remarkable heifers.

The exhibition of thorough-bred horses was small. Messrs. Reber and Kutz had a very fine two year old horse "Bronx," and a superior filly of the same age, "Young Fashion," both bred by Col. Morris, which were perhaps the best animals in this class on the ground. The show of other horses was much larger, though there were but few really extra ones.

The number of sheep on exhibition was large. Merinos were rather in the ascendancy. There were a few good long wools, and some good South Downs, though a large majority of the latter were very poor specimens. The show of hogs was very good.

The exhibition of implements was large and very superior. Plows and cultivators were in abundance, and many of them showed very superior workmanship. The Dairy Hall was but poorly filled, though there was some remarkably fine cheeses shown from Ashtabula Co. The Floral Hall was most beautifully arranged, and was decidedly one of the most attractive parts of the exhibition. I have never seen anything at any of our Fairs that at all equalled it.

I was indebted during my stay there to the various officers of the Society; and trust they will afford me the opportunity at some future time to return their many civilities.

To Destroy Lice on Cattle, &c.

Messrs. Editors—In one of your late papers, some one inquires for the best means of keeping lice from cattle and horses. I can tell him how to do it effectually.

My father was a good farmer in olden times. But his cattle and colts would sometimes get lousy. Being the youngest son, it was made my business to take care of the calves and young colts, and see them safely through the winter. To keep the lice from them, I tried a decoction of tobacco, applied to their backs and necks. It never failed. I then tried Scotch snuff sifted on to their backs. That also proved equally efficacious, and was more convenient than the first experiment. But on examination I found that all the cattle and colts that were in the habit of standing before the barn-door, whilst the grain was being winnowed, and became well covered by the chaff, were never lousy. I then tried sifting the chaff-dust upon the calves, and found it as effectual as tobacco in any form. Since that time, I have sifted upon the calves dry, fine dust from the streets, and find that equally as efficacious as either of the other experiments. Hens and chickens are apt to get lousy when kept in a close pen where they can have no convenient place to scratch in the dry dirt. But give them a chance to scratch and roll in the dry dirt, and they will never be troubled with lice. J. L. Edgerton. *Waverly, N. Y.*

Superphosphate of Lime—Correction.

Editors Co. Gent.—I exceedingly regret the error in my table of experiments. (See Co. Gent. vol. viii, p. 379.) It would have escaped my notice had it not been for the stringent remarks of Mr. J. H. Hodson. The figures do not accord with those in my book of experiments. In plot 2, the weight was 4,600 lbs., not 6,400. Also my remarks in reference to plot 2, should read thus:

"The superphosphate of lime had a tendency to increase the number of tubers, there being more small ones in this plot than any of the others. The only advantage in using this manure is the improvement in the flavor of the potato."

These errors were made by the printer. I hope under the circumstances you will insert these remarks, that they may in some measure remedy the mistake.

I have tried other experiments with superphosphate of lime as a manure for the potato, in progressive quantities of two, four and six cwt. per vergee, but it had no effect in increasing the weight of the crop. Meeting with this anticipated result, I do not see the utility of increasing the quantity of this manure

I do not think much reliance will be placed by the public on the experiments of persons interested in the sale of superphosphate of lime. Far better would it be for them and others to have the experiments conducted by some agriculturist of well known integrity, who would have nothing to do with the profits of the manufactory. The results of experiments tried and recorded by the seller of a manure, however faithfully it may be done, will invariably be looked on with suspicion by the buyer.

Genuine superphosphate of lime, as an auxiliary manure, is one of the best the farmer can expend his money on, particularly for the turnip, parsnip, carrot, onion, Windsor and horse beans, peas and radishes. If I can possibly find time, I will endeavor to explain why superphosphate of lime does not increase the weight of the *potato* crop. Jas. Levesqe. *Island of Jersey, Aug.* 7, 1857.

Ornamental Shrubs.

I have a grass plat in front of my country residence that I wish to embellish with ornamental shrubbery. I desire to obtain such a variety as will give me the largest amount of flowers and foliage for the greatest part of the year that I can.

Will you furnish me a list of such shrubbery as will best serve my purpose? I suppose it will require twenty-five or thirty small trees to cover it. I also want to know what are the best climbing, monthly, fragrant, hardy roses, red and white, for ornamenting a porch? Our winters are very severe, therefore every thing must be quite hardy. T. *Wheeling, Va.*

The following are some of the best hardy shrubs:—Japan quince, scarlet and white; Tartarian honeysuckle; dwarf flowering almond; Philadelphus grandiflorus; Siberian lilac; pink mezereon; Missouri currant; scarlet hawthorn; white fringe tree; purple fringe; silver bell; tree pæonia; spirea subifolia; snowball; Deutzia scabra; and all the hardy summer Roses, among which may be mentioned as most beautiful, the Scarlet Austrian, Crimson Boursault, Madame Plautier, George IV., Bonne Genevieve, La Tourterelle, Triumphe d'Abbeville, Aureti, and many others; also La Reine, Mrs. Elliot, Duchess of Sutherland, and a few other hybrid perpetuals.

We know of no *hardy* climbing *monthly* roses. The best climbing roses do not continue in bloom through the season—among them, prominently, are Queen of the Prairies and Baltimore Belle—furnishing, when grown together, a rich profusion of red and white flowers. There are several other prairie roses of great beauty, as Pallida, Superba, Perpetual Pink, (not perpetual, however,) Triumphant, &c. The Ayrshire roses, white and blush, are fine runners. The scarlet trumpet honeysuckle blooms all summer, and should not be omitted; and the yellow trumpet and fragrant are also very desirable.

Culture of the Cranberry.

ANSWER TO INQUIRY.

Messrs. Editors—I would recommend the setting of cranberry plants two to two and a half feet apart for large plots, and fifteen to eighteen inches for small ones. At two feet, it requires 10,000 plants to set an acre—at two and a half feet, 7,000—at eighteen inches, 19,000. But I prefer to set three plants in each hill, which would require 30,000 to the acre, at two feet. Set at any time when the ground is not too dry. I have set them at all seasons, except when the ground was frozen, with success.

Manner of Setting: I prefer Edmund Bagley's method. "Cover the runners up, leaving just the tops of the lateral shoots or sprouts out of the ground. This should be done whether the vines are cut or not."

For upland, Elias Needham considers about 21,000 plants sufficient for an acre. I set them thicker.

The soil most suitable for their growth, is low wet marshy ground. They also do well on muck, or any poor swampy land, where nothing else will grow,—by taking off the top of the ground to remove the wild grass or vegetable matter, and then carting on beech or other sand to the depth of two or three inches, to level the ground and prevent grass and weeds from choking the vines, and to keep the ground loose around the plant.

For borders and garden plots, spade out the manured surface a few inches deep, and form a new surface, of sand three parts to one part muck, on which set the plants according to fancy. The thicker they are set, the sooner they become matted; if set close, a full crop may be expected the second or third year: two inches is not too close for borders.

They bear abundantly on marshes covered with coarse sand, entirely destitute of organic matter of any kind, but accessible to moisture—on pure peat covered with sand, and on every variety of soil, except clay, liable to bake or become hard in dry weather. On soil that can be worked with a plow or harrow, it can be prepared as you would do it for planting out garden and other plants; sometimes it can be burnt over, so as to get it in a condition to set out the plants. They can also be raised on moist loam, where corn and potatoes will grow, but not so abundantly on dry or sandy soil, unless covered two or three inches with muck. A more simple mode, where there is hardly any thing but bushes and bogs, is to strike a hoe into the soil, and raise it a little to insert the roots, and press the soil slightly with the foot. No animal or vegetable manure should be used. D. L. Halsey. *Victory, N. Y.*

Cures for Sweney

We have two more replies to the inquiry for information on this subject. Mr. C. D. Gray of Castle Creek, N. Y., says:

"Take 20 drops oil of vitriol, (sulphuric acid,) put in oil of spike till it will not burn a cotton cloth. Grease the hoof all around next to the hair (to prevent it injuring the hoof;) then with a swab apply the medicine to the enlarged part, and heat it in with an iron previously heated for the purpose. Put it on every other day for nearly two weeks, and the bunch will gradually disappear. The hoof must not be wet while you are doctoring it, nor for three days after. It might be well to add that the above will not take off the hair, nor disturb the skin apparently.

Messrs Editors—I got the following remedy from a Mr. Hicks, a horse drover from Ohio, and have cured two of my own horses, one of which had the Sweney in both shoulders, and have known other horses cured by it.

Soak the foot of the diseased shoulder one hour each day for ten days, in warm water; then have the animal shod, and after shoeing turn the foot up, and with the blacksmith's tongs press the shoe open, which last operation may be repeated twice a week until the cure is performed.

The seat of the disease is in the foot, and when the foot is relieved the shoulder is relieved. I have known a horse swenied by a piece of corn-cob getting jammed in his shoe so as to press on the inside of his foot; the cob was removed, and in a few days the horse was well.

Cure for Scratches.—While I am writing, I will give the best remedy for the scratches I ever tried. It is simply a strong solution of urine and copperas, with which wash the diseased parts well once or twice a day.

Should you publish the above receipts, I have no doubt you will have the thanks of all who try them. Jos. B. Whitehead. *Smithfield, Va.*

How to Increase Your Manure.

Manure is the prime want of the New England farmer. Its preparation and application is the foundation of all successful culture.

Without it he may underdrain his land in the most approved manner, loosen the sub-soil to any extent, plow, mix, pulverize and cultivate to infinity, and yet cannot produce remunerative crops in succession; in short his expense will be incurred in vain, his labor lost. With it he may make all these expenses afford him an annual profit, of large per cent; may reap a rich reward for all his labors in the most abundant crops; may improve his farm until every rod of it shall become fertile as the most productive garden, and beautiful as anything in nature can be.

How then shall this want be supplied? Shall we go abroad and search the whole earth for sources of supply—bring lime from the distant kilns—improved poudrette, phosphate, superphosphate, ammoniated superphosphate, and muriate of lime from our large cities—shell lime, fish manure and animal fertilizers from the sea coast—plaster paris from the north countries—green sand marl from the south—salt from the Atlantic—guano from the far off isles of the Pacific—wool waste, horn shavings, bones and bone dust from all regions?

Shall we do all this, and incur almost unlimited expense, while the substantial good we seek is within our reach, on our own farms, but being wasted and lost, and by its decay and loss, increasing earth's pollutions, and multiplying the sum of human sufferings? Would it not be better economy and wiser to husband our home resources first?

Many intelligent men believe that there are placed within the reach of the farmer, ample materials to fertilize all the land he can profitably occupy.

However that may be, it is certain that there are materials at hand, which if carefully saved and composted, or otherwise prepared, would vastly increase his present supply. And when manure is itself the product of the farm, instead of being obtained at the cost of other farm products, it is then, and perhaps only then, the main-spring of all real profit in farming operations.

Consequently he who succeeds best in the home manufacture of manure, other things being equal, is likely to be the most successful farmer.

But where even at home, shall we look first for the supply of our prime want?

I answer, to the barn-yard, or more properly the barn cellar. And I believe that among all the fertilizers ever invented, or discovered by man, there is none which, in all respects, surpasses, nor even quite equals in permanent value, the droppings of the farmers' domestic animals, composted with such materials as every farmer may readily obtain in his own vicinity.

I am aware that there is a great diversity of opinion in regard to the relative value of the article in question, and that even "Doctors disagree" as to the best methods of applying it. But I am also aware that all practical farmers in New England, agree in assigning it a high positive value, and succeed in finding some profitable method of application. It is true that some complain, that as they apply it on their soils it heats quickly and exhausts its own powers long before the crop, for which it is intended, is fully matured, while others say that it lies cold and heavy in their soils, without affording apparent benefit to the crop, until late in the season. I think these difficulties however, and their remedy, may generally be explained by a knowledge of the manner in which the manure is prepared and used, and of the soil to which it is applied.

I suppose that the solid excrement of animals yields a large proportion of seed-forming elements, and that these elements are developed slowly, not acting upon plants materially in the early stage of their growth, while there is a deficiency of those elements specially needed to produce a luxuriant growth of leaves and stalks: so that if a crop, as of corn for instance, be cultivated with this manure alone, there will be danger that it will grow slowly, and be small, although what seed it does yield may be of superior quality.

This deficiency in the solid, is richly supplied in the liquid excrement, which affords in abundance, those elements most needed to insure a rapid and healthy growth of leaves and stalks, while it lacks a supply of those so largely furnished by the former. And if the crop were cultivated with the liquid alone, applying it, as our farmers commonly apply their manures, before the growth of the plant commences, it would be forced in the early stage of its growth, and would present a magnificent display of leaves and stalks, while there would be great danger that the ears would not fill out, and that the kernel would be imperfect.

If this supposition be correct, it will be readily seen that it is of the first importance that the farmer should save with the utmost care both the liquid and the solid excrement of all his animals, and protect them from all exposure to loss, that the two may be intimately blended, and applied together to his fields, to furnish in unison, all the elements necessary to give a quick start to his plants, to produce a rapid and luxuriant growth of leaves and stalks, and to supply a rich harvest of "full corn in the ear."

But even if the supposition be not correct, there is still sufficient proof that both the liquid and solid excrement of our cattle, are of too great value to justify, as is still too freqcently the case, their exposure to the scorchings of the burning sun, the "peltings of the pitiless storm," and the driving blasts of all the winds of heaven.

Instead of such exposure, let some shelter be provided for our manure, which shall protect it from the sun, rain and wind. A barn cellar is the best: Let an abundant supply of some absorbent be procured,—and nothing is better than good dry-meadow muck; and used in quantities sufficient to absorb all the liquid droppings of all our cattle, and mixed every day with the solid manure.

From my own experience in preparing manure, I believe two cords of compost prepared by mixing daily one cord of dry muck with the same quantity of solid excrement of animals, to be fully equal for all practical purposes, to two cords of the latter, preserved and applied without the muck; and also that two cords of compost, prepared by using that quantity of dry muck, to absorb all the liquid voided by the same animals, during the time required to obtain the one cord of solid excrement, to be equal in value to two cords of the former compost. Thus we have four cords of equal value by this process, to every one cord obtained where the manure is thrown out of doors and left exposed to sun, wind and rain, and all the liquid allowed to run to waste.

I would have the compost thus preserved, worked over two or three times, being carefully covered with muck after each overhauling, and kept under cover until needed for use, when it should be drawn directly to the field, spread evenly, plowed in as soon as possible, and mixed thoroughly with the soil.

If the soil is of a light sandy or gravelly character, I would use dry clay freely, in connexion with the muck, for an absorbent; if heavy and composed largely of clay, peat, or swamp mud, I would use sand instead of muck.

And now if after having quadrupled the quantity of manure formerly obtained from our domestic animals, by our wasteful mode of preparing it, there is still a deficiency, shall we dip into the fancies?

Not yet, brother farmer; not quite yet. Let us try once more at home, with our labor, before we go abroad with our money. There is still that exhaustless bed of meadow muck, "Dana's vegetable cow manure," into which we may dip again; rich as it is in nearly all the elements contained in the solid excrement of our animals, it only needs something to give it the life and vigor, the forcing qualities, which the liquid imparts to these. And there are innumerable ways in which that something may be obtained.

Let the muck be dug, and exposed to the frosts of winter, to aid in its disintegration and correct its acidity, and to the burning sun of summer, to remove from it all moisture and the poisonous gases engendered in its swampy bed. Then let it be composted with any animal matter found about the premises, or in the vicinity: the carcasses of all dead animals, large or small, offal of every kind, woolen rags, bones, old boots, shoes, and waste leather of every description, the droppings of the hen roost, soap suds, salt brine, all drainings from the sink spout, slops from the chambers, and cleanings from the privy: let all go to the compost heap. And whatever will not decay there, with sufficient rapidity, without assistance, aid its decay by the addition of such substances as will facilitate the object.

Bones, leather, &c. may be softened so as to pulverize readily, by being packed in ashes and kept moist a few months; and if the whole be sufficiently covered with muck during the process, there will be no loss of any element; or they may be packed in an old cask in a strong solution of potash, or may be prepared with sulphuric acid in the most scientific manner, and when thus prepared in either of these ways, will add greatly to the value of the compost heap. And if it still is not strong enough, add wood ashes to any extent, from one to ten or twelve bushels per cord,—and I fully believe with Dana, and from experiments tried by his suggestions, that eight to ten bushels of ashes alone per cord, will make the muck, when properly mixed, equal to common stable manure,—or soot or charcoal dust may be used if easily obtained.

When thus prepared, our compost heap should be carefully worked over, thoroughly mixing all the different ingredients. It may then be applied to the soil, in the same manner with that from the barn-cellar, or in any other way desirable. It has been found to be an excellent manure for fruit trees and grape vines, also for application to sowed crops, as wheat, barley, &c, and as a top dressing for grass lands.

But what if the muck cannot be obtained in sufficient quantities, at a reasonable rate?

Why then, I would gather instead, turf, soil, or loam, from our headlands, from the road sides, from old walls, from ditches, or from any other source, and would mix with it every waste material of a vegetable nature, to be found about the farm.

I would save and mix with this heap, all leaves, straw, chips, brush, weeds, potato tops, corn-cobs, breaks, briars, &c., and would hasten the decay of the coarser articles by the addition of urine or lime, being careful to have them well covered and kept moist during the process of decay When thus prepared and dried, I would use this heap for an absorbent, or for compost, in the same manner as the muck.

And if after having saved all the articles enumerated, as carefully as if they were grains of gold, still more manure is needed, why then try the concentrated fertilizers of commerce. But let it be the last resort, and even then remember that every addition thus made to the products of your farm, should thus afford additional materials for the increase of your next year's home-made pile, and thus lessen the necessity for the future purchase of fancy articles from abroad.

These remarks are not intended to apply with the same force, to farmers in the immediate vicinity of large cities, as to those in the interior; nor to those whose main business is to raise produce to sell in the crude state, as hay, grain, root crops, &c. These must, of course, return to their farms in some form, the elements they so constantly draw from them to send abroad. Nor would I be understood to discountenance the use of liquid manure, in the liquid form; on the contrary, I most heartily approve of it, by those who have or are willing to procure the necessary facilities for the purpose. Neither do I object to the purchase of foreign manures by those who economise their home resources. Let such purchase and use the fancies to any extent they can make profitable. The main object is to induce our farmers to practice the most rigid economy with regard to everything upon their farms that can fertilize. W. G. WYMAN. *Fitchburg, Mass.*

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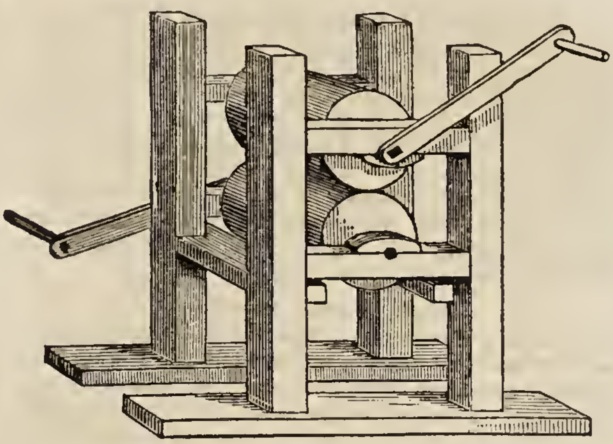
MANURES.—I wish to make more manure than I can make from my straw, hay, &c. How would it do to gather forest leaves? Would it pay? If so, which would the best plan to make them into manure? In the barn-yard, or in the compost heap, with or without lime? The desired information will be thankfully received C. F. *Clarion Co., Pa.* [Forest leaves are admirable for assisting in the manufacture of manure, and may be used to advantage, if easily gathered. The best way is to rake them with a stout rake, fill large baskets, and draw them in a large wagon-box' large enough to hold one or two hundred bushels. and made on purpose. A man and one or two boys with a team, will draw a large quantity in a day, late in autumn. They can be gathered most rapidly in hollows where the wind has blown them. They may be used in a barn-yard to great advantage, and make a superb litter for horse and cow stables, and fine short manure for spreading. They may also be used in a compost heap, but we prefer turf for the latter purpose]



Hand-mill for Crushing Chinese Sugar Cane.

Messrs. Tucker & Son—We have a small hand-mill for crushing sorghum, or Chinese sugar cane, in operation here, which I will briefly describe. It is wholly of wood, and consists of four posts of 4 by four oak, 2 feet 10 inches long, set up vertically. Two pieces of 2 by 4 are tenanted into these, running horizontally at a distance of nine inches in the clear above each other. This makes the two halves of the frame. These are held together by a double or broad tenanted piece of 2 by 6, at each end, 9½ inches long, just below the lower horizontal side piece. These six horizontal pieces are all secured in the frame by tapering wedges, so that it can be quickly taken apart, and the distance between the rollers thereby regulated, so as to crush the cane more or less.

The rollers are 9 inches long by 8 in diameter, placed one precisely over the other—having, of course, been accurately turned—and have a projection left on each side to which a handle or winch, with a crank two feet long, is attached, (similar to a well winch.) The axis of lower roller rests on the two horizontal pieces of 2 by 4—that of upper roller directly under — the axis working partly in the corresponding or upper piece The ends of each roller are held in place under and over each respectively by wooden fittings and long screws. There are two winches, one to each roller, affixed on the opposite ends, and two men on opposite sides of the frame turn the rollers towards each other; a boy feeding in the cane. The legs of the frame are fitted into two inch plank, raised on legs to suit the hight of those who turn the winch.

The seed heads are first cut off and the leaves stripped off: then the stalk is slightly pushed as it is fed in. This machine crushes the stalk thoroughly—though it is hard for two men to turn.

It is easy to see that its power might be trebled by leaving a projection when turning, on the opposite end of each roller to that which the winch fits, for a band attachment. A band from the projection of each roller might be carried back eight or ten feet—both to one large roller turning on frame, or in crotches, fixed fast, with a fly wheel, by one or two men, according to power required. This would give a power equal to that of six men on winches, which would be sufficient to crush the cane effectually and without fatigue. J. W. Clark. *Marquette, Wis., Sept.* 25, 1857.

P. S.—We have made syrup, and it is very good. My stalks are 12.6 high. I think the Imphee is sweeter than the Sorghum. J. W. C.

The Sugar Cane Mill.—In a hasty description of a small mill recently forwarded (see article above,) I omitted to state that the wedge that keeps the horizontal side pieces down on the journals of the rollers, can be moved, and a plank loaded with five to fifteen cwt. of stone or other weights, placed on top of said side pieces, so as to press the upper roller down upon the under one perpendicularly. The mill operates better thus loaded, than when fixed at a given width between the rollers by wedging; because when weighted only, the pressure of the rollers is the same, but the width between them is graduated as the cane passes through according to the resistance of the cane resulting from size, hardness, &c, while the mill is much more easily operated, and crushes as effectually as when wedged. J. W. C.

Molasses from the Chinese Sugar Cane.

Sorgho looks fine, such as is standing, as a few mornings since I found about half my crop entirely prostrate. I have about 1,000 hills. It had grown very rapidly, and some of it is 14 feet high. I presume it fell from being top heavy, although many of the stalks are 1¼ inches in diameter. It was planted May 21, on ground which probably would have yielded 45 or 50 bushels of corn to the acre. I planted three seeds in a hill, hills three feet by two apart, and as some of the seed did not come up, I added seed enough to make three stalks, i. e. if but one of the first planting was up I put in two more seeds. By this means no hill could possibly have had more than six seeds, for allowing the three first planted did not germinate until I had replanted, three more would made but six; still when I thinned it out, I found as many as 16 stalks in a hill, and one hill I left with that number in. As so much of my crop was down, I cut 20 stalks, on all of which the seed was quite green. After taking off leaves and top, I carried the canes to my mill, and I found them as much of a load as I care to carry at one time. I think I would have done as well to have taken my mill to the canes, for it consisted of but a rolling-pin and a small piece of oak board planed smooth; yet with this inefficient apparatus I pressed out of the 20 canes three quarts of sap, and I verily believe I obtained but half as much as a good mill would out of the same canes I then boiled the three quarts down to a pint of very good molasses, as thick as what was called in my boyhood days in N. Y. city, "sugar-house molasses," and much thicker than the molasses of the present day. The color is similar to maple molasses, and the flavor much like that of syrup from stewed pears. My family are very much pleased with it. A yield of a pint to 20 canes is at the rate of 272 gallons to the acre, provided it was planted in hills three feet by two, and six stalks in each hill. I am satisfied it will be a profitable plant for making molasses, and for fodder I doubt if it can be equalled, sending up so many stalks in a hill. I believe an acre sown broadcast would yield a large amount of fodder, and more than a sufficiency of molasses for any farmer's family for a year.

I shall make another trial with canes nearer maturity, and also make some sugar. P. A. S. *Quincy, Lewis Co., Ky, Sept.* 20.

P. S.—I have just (24th) taken the seed from one head of cane, and after thoroughly drying and cleaning it, find its weight 2¼ ounces.

* * *

Madison Co. Fair.—A correspondent furnishes us some notes of this show, from which it appears to have been in horses remarkably good, in cattle superior to former years, in other stock better than last year, small in dairy products and the mechanic's department, and fair in flowers and fruits. A storm on the last day was felt in the receipts of the Society, which has cause for congratulation in all other respects. S. P. Chapman, Baker & Son, and others, contributed to make the display of Short-Horns of more than average value and merit.

Culture of Millet.

Messrs. Tucker & Son—I see in the last number of your paper, a paragraph asking information concerning Millet. It is but a few days since that I wrote to ask if there were any pamphlet or papers upon the subject, and received from my correspondent, a large seedsman, the reply that he knew of none; but having just finished harvesting a crop, I intend to send you my experience.

A piece of sod land, turned over last spring—the soil a stiff clay—I selected for my first experiment. Upon half an acre I sowed 500 pounds poudrette—harrowed—then sowed twelve quarts of the millet, and again harrowed, and in the last proceeding committing a great error I am told, the seed to be properly covered requiring bushing. This was finished the 18th of June. Upon the 1st of July, half an acre of land plowed last fall, and again in the spring,—was harrowed—100 pounds of guano sown, and the seed in the same order as before, still harrowing in.

Upon the 24th of August I cut the first mentioned, the seed having ripened in the heads. Upon some spots where barn-yard manure had fallen, the stalks stood five feet eight inches in hight, the rest averaging three feet six inches. Having been badly sown, there were bare spots. The yield was however, rather more than a ton and one half.

On the second half acre, I cut, on the 10th inst., more than two tons—the same fault in sowing occurring. The average length of stalk being about the same.

As far then as I can judge from the result of these attempts, the millet will prove very well worth the attention of the farmer. Next year I hope to try it upon land in better condition, and upon a more extended scale.

I can give no idea of the quantity of grain to the acre, from the seeds. I should imagine it would be very large, though I am inclined to think its principal value will be as fodder.

Before closing, let me observe that the poudrette has proved with me worthless. In the hill with corn, it gave it a darker tint, and then apparently ceased. H. A. G. *Ashford, Ct, Sept.* 22, 1857.

Power Hay Fork, Hay Caps, &c.

Editors Co. Gentleman—We procured from one of your advertisers last spring, the "Self-adjusting Hay Elevator," and it proves to be a greater labor-saver than it promised. We have unloaded hay and loose grain at heights of from ten to thirty-five feet—in time, from five to ten minutes a load—sometimes at four, and seldom more than eight forkfulls to clear the wagon. It allows, in such Dutch barns as ours, where the hauling is short, to double or nearly so without sweat, the quantity housed in the day. The support for the upper pulley block we made by putting a clevis in the rafter peak, three feet over the mow, thrusting the clevis bolt through the peg hole used for pinning the rafters together. The fork requires a space of about eight feet to move easy with a large loading, although six will answer where the barns are so situated for the upper filling in. A few rough boards nailed from the floor to the first cross beam, and when full so far, to the second, prevents the fork's dragging up the mow. In thrashing we use it to take the straw from the floor to the peak, saving thus the passing it through the hands of three pitchers, besides carrying it up in much bigger "chunks."

Hay Caps.—We experimented this season on this modern protector, and the result is, that I believe the small caps of three feet square are comparatively useless, those one and a half yards square the best size. Those not oiled did not keep out the wet effectually, but those dipped in boiled oil repelled the rain of nearly a week's duration, so as to require but an hour's airing of the cocks to fit them for drawing. The stones sewed in the corners will, I think, be abandoned on trial, as they make them too heavy to move in quantities, besides proving inadequate in a brisk breeze to retain them in their place, while pegs not only hold them on, but also spike the hay from caking off the top, as it sometimes does, cap, stones and all.

OSAGE ORANGE HEDGES.

When the thermometer last winter exhibited the cautious mercury retiring to the bulb, down from line to line, pausing at 30° below zero, we feared among other fears for our pet hedge plant, the Osage Orange. But, with the common protest that other vegetation gave, in tardy leafing, it came forward in the spring, and now, from the sharpness of its thorns and the gloss of its foliage, you would think it never had dreampt of a chill. We have a piece five years old, that would turn the breachiest horse, but owing to its not being cut back low enough at first, it is not compact at bottom. We are now, confident of its hardiness, dividing our fields with this substitute to stake heaving, rider breaking, worm and rail nuisance.

I had intended to add a few remarks on drovers and their action hereabouts, but I have trespassed too far, and if "brevity is the soil of wit," shortness, I know you sometimes think, is the cream of wisdom. James Arkell. *Canajoharie, Sept.* 21, 1857.

Fruit Tree Borers.

These, like the wheat midge, seem to be on the increase in the older regions of country, and to be making their way westward into the more recently settled states. In Ohio, Indiana, and other comparatively new states, we see notices of their presence and ravages.

The methods heretofore employed to destroy these gimlet armed insects, seem to prove not frequently utterly inefficient. We meet with complaints of their continuing their destructive gimletings, notwithstanding all the efforts made to extirpate them by punching them with wire and whalebone, cutting and digging them out, plugging them in, and using various kinds of washes. Probably these methods are all successful to a certain extent, and would be more completely so if they were more generally or universally employed. But it is with these pests as it is with some kind of weeds: There are always some in every neighborhood who are too lazy or negligent to use means for their extermination, and thus they get a chance to spread, causing trouble and loss to the innocent as well as to the guilty.

What is most wanted and most likely to be effectual, therefore, is some method which will be so easy of application as not to appear to the diseased imagination or fears of Mr. Lazybones or Mr. Putitoff as "a great chore," or "too big a trouble."

In a previous volume of this journal Dr. Fitch recommended a method which, we doubt not, would be effectual as a preventive, and perhaps as a cure, and one which need not alarm even the laziest, viz., to wash the bark of fruit trees with a solution of soda or potash, or common soft soap. To save the time of the busy, or the work of those who have a dread of work, Dr. Fitch suggests that putting a goodly coating of soft soap into the larger and lower crotches might answer this purpose, by being washed down by the rains. He thinks this application of alkaline or soapy solutions, or soap itself, to the bark, would render it so distasteful to the insect mother that she would not lay her eggs in it. The addition of a little aloes or quassia to these solutions would be likely to make them still more effectual.

Another method which seems not very troublesome, and which has in view the killing of the borer as well as the prevention of the laying of more eggs, consists in raising a little concave mound of earth around the base of the tree, and pouring upon the tree or washing it with some offensive or destructive liquid. Solutions of salt, brine, urine, and boiling water have been proposed for this purpose. Of these the application of boiling water is said to be certainly efficient, while at the same time it is affirmed by several to be *quite safe.* Brine and solutions of salt would hardly be safe.

Any of these methods are easy of application, more so than punching, &c. If employed by a whole neighborhood in June and again in September or October, these pests would be greatly abated if not wholly exterminated. *

Horse Shoe and Sole Tile.

Messrs. Tucker & Son—I see in your last number an inquiry in regard to tile draining, as to which is the best, horse shoe or sole tile. In a clay or gravelly bottom, horse shoe tile is as good as sole tile, if the descent is not too great—*not more than one foot to the rod*—if more, in time the bottom will wash away, if boards are not used. In a bog, quick sand, or soft bottom, where a man sinks when digging, probably horse shoe tile are the best (according to the method of most draining here at present) *where a board has to be used*, because they are cheapest according to size. I prefer sole tile without boards in almost any kind of ground, if I am allowed to dig the ditch, as I dig it no wider than just to admit the tile—no matter what size; and I am confident that the tile are no more liable to settle down than the dirt that came out where the tile are put. If the ditch is dug no wider than just to admit the tile with an even descent, and the tile put in the bottom, end to end, that is all that is required. Then fill in your dirt as fast as you please. Geo. Alderson. *Albany.*

Composition Walls for Buildings.

Messrs. Editors—I have read a communication in the present volume of the Cultivator, p. 109, which is so far explicit, but to the uninitiated in composition walls, leaves something unexplained. In the same volume, p. 192, I find a quotation from the Maine Farmer addressed to J. E. S., but which I have not yet seen answered. If answered, it would almost contain all I want to know, although I might add—What kind of cement is best for the blocks when laid in the walls? and would the half of the blocks be better made of half the length of the others, in order to make break joints? If J. E. S. or some other of your numerous correspondents who know sufficiently about the matter, could be induced to answer these inquiries, they would confer a great benefit on me as well as many others, particularly of your western readers.

A number of farmers here have tried the composition walls after the manner of Mr. Fowler, but all have failed at various stages from the bad quality of our western lime, or from bad workmanship, with the exception of one, who was at great pains to get good lime and assisted in the workmanship himself; he has got up a fair substantial looking house, but from the cellar being of the same composition, and no drainage being adopted, a portion of the wall at the ground has been bursted by the freezing of the last severe winter. I have concluded to build my cellar of stone two feet at least above ground, and then try the blocks, which I think must be much superior to the "grout wall."

I think if some person would publish a small cheap pampblet, giving full and explicit directions for building the various kinds of composition walls, with the latest improvements, he would find the work profitable. I may also ask where the best lime is to be had, for I should have it if I have to send to New-York for it. J. M. M. *Summerville, Mich.*

Raising Melons and Cucumbers.

While recently partaking of some very fine watermelons at the house of a neighbor, he informed us how he raised them. He first made a trench two feet wide and a foot and a half deep. He filled this with fresh or heating horse manure, about six inches above the surface, or two feet deep in all. This was covered with three inches of soil. He then took a sharped handspike (a crowbar would probably do) and made a hole down through the manure by striking it repeatedly and briskly; and then working it about, made the hole some ten inches in diameter. These holes were made for the melon hills, about six feet apart, but eight feet apart would probably be better. The holes were then filled with fine rich garden mould, and the seed planted. In no case is more than two plants left in one hill. The heat of the fermenting manure, and the fertility added, causes an early and rapid growth, and early fruit.

The most simple and certain mode for determining the ripeness of the melons, although not new, he finds is to observe the tendrils. On strong healthy runners, the tendrils die opposite to the melon as it becomes ripe, and dead tendrils are a reliable indication. We never found any thing so good and simple as this.

If, however, the runners are crowded, and allowed to grow in a thick and confused mass, the tendrils will die much sooner and indicate nothing.

Another neighbor seeing this mode of planting, immediately tried it with cucumbers, and had a supply long before any others had thought of looking for them. Let our readers now make a memorandum on this point, and thus be prepared for successful operation next spring.

How to Preserve Cider Sweet.

Messrs. Editors—From time to time many ways have been recommended, and many directions given, to preserve and keep apple cider in a way that it will retain its freshness, and that peculiar flavor that it possesses when it is first manufactured, and also to prevent its becoming hard and sour. Of the various methods proposed, more or less expense and inconveniences attends them all; but the most effective, the simplest, and the cheapest way that I have ever tried, is to scald the cider previous to its fermentation. My method of treating my cider, which I wish to keep sweet and fresh, is to heat it until it boils; then take it from the fire and cool it; put it in casks, and close them air-tight. In this way I have kept it without any apparent change until cider that was put up without scalding would be sour enough for good vinegar. How long it may be preserved in this way I do not know, but any one can easily determine by trying the experiment.

By boiling down new cider from one-third to one-half, an excellent syrup can be made for culinary purposes, which can be kept for any length of time as well as molasses; and any family by preserving cider in these ways, and also having a supply of dried apples to use when green ones fail, can supply themselves with many cheap and healthy dishes of food which they would otherwise be deprived of.

This apple syrup is valuable as a medicine, and is much used in this vicinity for the cure of colds and coughs, and I have known families who used no other article for their children when troubled in that way. C. T. Alvord. *Wilmington, Vt.*

Wheat and Chess.

MESSRS. EDITORS—The September No. of the Cultivator, p. 289, contained an article headed, "wheat turning to chess," in which I read with pleasure the experiment of Mr. DAVIDSON; and think it proves just what many observing farmers believe to be a fact; that wheat, when "winter killed," or "fed off" in the fall or spring, will produce *chess*, *cheat*, or *false wheat.*

The theory I believe to be this: When wheat seeds are sown, they spring up and produce, under favorable circumstances, stalks and heads of matured wheat; but under unfavorable circumstances, like those above mentioned, the plant sends forth a shoot possessing a diminished or feeble vitality, and therefore falls short of perfection; the product being *chess* or *false wheat.*

I conceive that Mr. Davidson's experiment sustains this idea, (which you observe implies neither a transmutation of the wheat seeds or wheat into chess, nor a separate origin for the chess,) and that in all probability there would have been no chess plants in his pan where the wheat seeds were placed, had they not been peculiarly subjected to the exposure of the elements by the experimenter.

Science has never yet answered the appeals of the farmer upon this mooted question as upon many others, but we hope the Scientific Committee with the help of the practical Mr. Davidson may next year be able to answer us, and say *positively* where chess comes from.

In concluding these remarks, I have only to say that I should be glad to see in the columns of the Cultivator, either argument or proof, from any person, that wheat sown in the fall does not under any circumstances produce chess. C. G. REED. *Bethany, Wayne Co. Pa*, *Sept.* 14, 1857.

The experiment alluded to was admitted by all parties at the time and place of trial, to *fail* in proving that wheat turns to chess, although the advocates of transmutation were "satisfied" that it did. To "satisfy" a credulous person is one thing, and to *prove* the fact is another.

We are not surprised that our correspondent "thinks" that the experiment "proved" transmutation; because those who adopt that opinion, are so easily "satisfied."

"Science," we think, has fully "answered the appeals of the farmer on this mooted question," by showing, first, that no plant ever passes generic boundaries as it would have to do in this case; by the fact, that there is never even *claimed* to be any *hybrid* between wheat and chess, as is always the case in crossing; by the fact, that although high premiums have been offered for a single plant (out of the billions that must be changing, if there is any change,) in a transition state, or part wheat and part chess, yet a single plant has never been produced; by the fact that a single cubic foot may contain *five million chess seeds*, and an acre of soil six inches deep might be made to contain *sixty million million seeds*,—and if only *one millionth* part of the soil were occupied by chess seeds, there would still be *sixty million* seed in one acre of soil,—showing that a great number may exist, enough to grow a heavy crop without detection Science has also shown that chess plants, shaded under a growth of wheat, and not more than two or three inches high, will perfect and drop seed unperceived for another crop, while if unshaded (or where wheat has been winter killed,) a single plant will spring up several feet high and produce three to five thousand seed. *Practice* has also shown that in some countries, and in some regions of our country, as bad for winter killing as anywhere, where chess seeds have never been introduced, *no chess is ever produced.* Now these facts are sufficient—the proof of transmutation obviously rests on its advocates—they must *demonstrate* the truth of their hypothesis. This they have never done; but have merely *assumed* an opinion, and brought facts, entirely inconclusive, to sustain it.

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Precautions against the Pestilence and other Diseases among Cattle.

It is generally known, we presume, that there has recently prevailed, and still prevails, a disease of a most pestilential and fatal character among cattle in Prussia, Germany, and other parts of the continent of Europe; and that to prevent the extension of this disease to Great Britain, the Government of that country has prohibited the importation of cattle, hides, &c., from the infected districts. There are some who think that these protective measures, though highly proper, are not all that is required to protect the cattle of Great Britain or other countries against this most terribly destructive scourge of the bovine race, as the disease may be of an epidemic, as well as of a contagious nature. With every precaution against contagion, the disease, it is thought by some, may suddenly appear in England, or in this country; not necessarily imported from the affected districts, but like the first appearance of the Asiatic cholera, the outbreak may be sudden, and not directly traceable to contagion. The opinions as to the nature of the disease,—whether it appears occasionally in an epidemic form, and without chance for contagion, or whether it is propagated only by contact,—are as yet unsettled and conflicting. In this state of matters, while it would be unwise to get into any panic about the danger, it would be no more than what the most ordinary prudence would seem to require, if the owners of cattle should endeavor to guard against it, should it come either as an epidemic or by importation, by attending to the health of their stock, and especially by preventing the operation of those influences which are known to debilitate the general or constitutional vigor, and thus render the subjects of such influences more susceptible of that or any other disease. It seems, we say, no more than the dictate of ordinary prudence that owners of cattle should now study to protect them from all injurious and debilitating influences, and raise their condition to that of the most vigorous health.

Among the influences which are well known to affect the animal system injuriously, to lower the vigor and tone of the body, and expose to the more ready attack of any disease whatever, the following are the more common, and more detrimental:—Exposures to fatigue, over-exertion, sudden changes of temperature, impure atmosphere in unventilated stables and elsewhere, insufficient or innutritious food, irregularity in feeding, and sudden changes from one kind of food to another.

Exposures to fatigue, insufficient food, and other of the foregoing influences incident to long journeys, are generally supposed to be the most common predisposing causes of the appearance of the disease—a pestilential form of murrain—in Austria and Southern Russia. In these countries cattle are often travelled to great distances for the purpose of being disposed of, and the disease often suddenly appears in the herd, particularly if the supply of water and grass proves poor or inadequate to the wants of the cattle while travelling. To prevent injurious influences from similar causes in this country, the comfort of animals driven or conveyed by railroad from one district to another should be carefully studied. The animals should not be crowded, nor shut up in close unventilated quarters; and they should be fed and watered with as much regularity as possible. Exposures to dampness, cold and wet, as well as to dust, are apt especially to produce diseases of the lungs and chest, and also of the digestive organs. Lying at night on the cold, damp ground, in a foggy atmosphere, after travelling all day in heat and dust, is an exposure which cannot be free from injurious influences.

Cattle, even at home on the farm, are often exposed, injudiciously and unnecessarily, to the chilling influences of exposure during the night. They would certainly be more comfortable and more secure from the attacks of disease if housed later in the spring and earlier in the fall than is commonly practiced. This applies with especial force to cattle of the improved breeds.

Cattle often suffer from being turned out in the morning with empty stomachs, to eat grass loaded with dew, or covered with hoar-frost. A few mouthfuls of hay or a few handfuls of meal or oil-cake would prevent the suffering and loss caused in this way. All expenditures for oil-cake will be certainly covered by improvement in condition and dairy products.

Cattle are more susceptible of disease when debilitated by insufficient or innutritious food.

An impure atmosphere, caused by close, crowded, and unventilated stables is a frequent cause of disease. In Great Britain, dairies in large towns and cities are seldom free from a disease of the lungs caused in this way, which is very destructive.

If these predisposing causes of disease be carefully avoided, the pestilence need not be very seriously dreaded, and the condition of our cattle will certainly be improved.

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Tile Draining.

Messrs. Editors—Please inform your readers here, where tile drains are unknown, how the water penerrates the drain represented in your July number on the Maryland plan, so as to drain the ground along which it passes. It would seem to be no better than a solid pipe. How is the horse shoe tile laid—close to the earth, or raised so as to admit of an underflow?

Will any size less than five or six inches be worth laying down on wet upland? W. S. Cowles. *Norfolk, Ct.*

The closest joint that can be formed by two bricks or tiles simply laid together, will admit the entrance of all the water that can be carried off by the drain. Take for example, tubular tile two inches in diameter. There is a crevice between the ends of each, equal to a slit six inches long—and such a slit for every foot, for one hundred feet in length, will more than fill the bore with water in that distance—no matter how closely the joints may be made to fit by any ordinary way. Other tile would admit the water still more freely, if enough could ooze from the soil to fill these crevices.

The Horse-shoe tile with its flat sole, should be laid solid on the bottom of the ditch, so that there may be no channel of water underneath, as such a channel might occasionally find its way between the tiles into the main tube, and fill it with sediment.

Tubular tile, two inches in diameter, will often carry off all the water for a hundred rods or more in length, and inch and a half tile will do if the slope is considerable. Much depends on the descent—for example, if it be ten feet in a hundred, many times more water will flow off than if but one foot. Main channels, or those receiving many branches, must generally be larger. Every thing depends on the quantity of water to be drawn off, and the steepness of slope.

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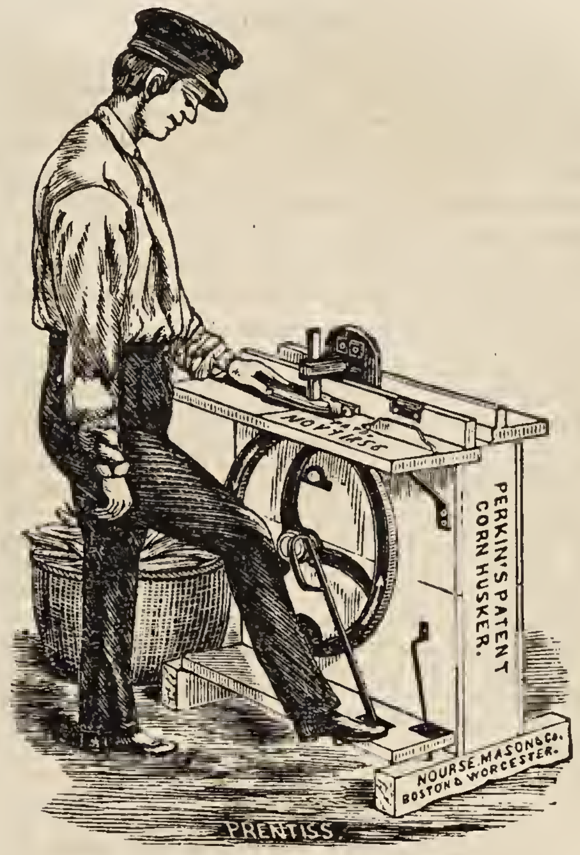
The Wisconsin Farmers' and Mechanics' Club held its 3d Annual Fair at Whitewater, Sept. 15, 16 The show does not appear to have been very large; most of the cattle present being contributed by Walworth and Jackson counties, and the sheep by Rock county. The exhibition of Fruit, however, was good, the Wisconsin Fruit Growers' Association uniting to contribute in this department. The apples and plums are especially spoken of as making a beautiful display.


NOURSE MASON
PERKIN'S PATENT CORN HUSKER.
NOURSE MASON & Co.
BOSTON & WORCESTER.
PRENTISS

Perkins' Corn Husker.

We are pleased to give above an engraving, now for the first time presented to the public, of a machine which promises to accomplish what has long been a slow and tedious hand operation,—the successful and rapid Husking of Indian Corn. It combines equal simplicity in itself, and ingenuity on the part of the patentee, Mr. Perkins of West Killingley, Conn The principle of the operation is merely to cut off the stalk and husk at the bottom of the ear by a pair of parallel chisels, the instantaneous separation of which pushes out the the ear, completely detached from every fibre of the husk. These chisels are shown in the engraving close together, as in the act of cutting off the cob just where the husk is attached. By a very ingenious contrivance they are then horizontally separated, with sufficient force to throw the ear off to the left and the husk to the right of the operator. The chisels then rise to the hight of several inches and again come towards each other horizontally, and meet before beginning to descend. A single blow downwards, and the ear is laid bare, while the force expended in the operation is scarcely felt at all on the tredle.

We saw one of these machines at Emery Brothers' Warehouse, having another pair of knives opposite to those above represented, so that two hands can work at the same time, and double the amount be accomplished with scarcely any more labor to the one supplying the motive power. It will require some experience to work it, and some care to keep the fingers out, but perhaps little more than is requisite in using an ordinary hay cutter. So far as one is able to judge without trial in actual experience, we see no reason why this machine should not be as universally adopted as the Corn Sheller now is. It is made at present by a firm in Boston, and furnished, we believe, for about $20. Emery Brothers expect soon to have it for sale here.

Poll Evil.

MESSRS. L. TUCKER & SON—Please favor me through your esteemed Country Gentleman, with a receipt to cure the Poll Evil on a horse of mine, which is a prevailing disease here in this territory, and much oblige, JAMES STEVENSON. *Clear Water, Minn.*

This is a difficult disease to cure, and hence there is much difference of opinion. It is commonly supposed to be caused by external injury,—by the horse striking his head against the roof of low stables, by tight curbing, producing hard pulling on the back of the neck,—by not currying that part of the neck well, and hence leaving the skin dirty there, &c. If taken early, stimulating poultices, as salt and vinegar, may dissipate it, in connection with light and unstimulating diet. If it suppurates, a large opening should be made low down, so as to allow a free flow of matter. The ulcer is usually treated with soap suds, or with pearlash—but we should prefer a solution of chloride of lime, not too strong, if the ulcer is foul and appears to need cleansing, but no longer. Dr. Dadd prefers tincture of iodine, injected by a syringe into the ulcer, and then applies a mixture of equal parts of salt and bloodroot, held on by a cold water pad. This is repeated daily, after washing. The general health and proper condition of the bowels must be at the same time attended to.

Farm Mill.

MESSRS. L. TUCKER & SON—After this delay, if a description of my Farm Mill is acceptable, here it is. It is called the "Excelsior Farm Mill," and manufactured by R. H. PEASE, Albany, N. Y.—price $50—has a ribbed cylinder and concave—attached to horse power same as thresher—running with a belt—can be attached to any power, water, steam, or horse, either right or left hand—will grind all kinds of feed, including corn in the ear—will grind from 3 to 8 bushels per hour, according to dryness of grain and power applied, a two-horse power grinding nearly as fast again as one horse—has a hopper, and can be regulated to feed itself, according to power applied—is regulated to grind fine or coarse by thumb nut and screw. I have a preference for this over sweep mills, as it takes but little room, and can be applied to any power. D. D. FOOT. *Turin, N. Y.*

Watering Trees and Plants.

During the summer of 1819, Long Island was visited by one of the most severe and protracted drouths that I have ever known. The best cultivated corn gave only half the common yield, and in many places trees died in the woods in consequence of its severity. Being rather partial to cucumbers, I planted in one quarter of my corn field some twenty to thirty hills, about the first of May. Soon after the corn and cucumbers came up and began to grow, the dry weather set in. The cucumbers soon began to suffer, and I commenced watering; giving them three barrels full at a time, carted to the field once a week through the fruiting season. They grew luxuriantly, and produced an abundance of cucumbers throughout the entire drouth, which lasted until the equinoctial storm set in.

I have repeatedly tried the same weekly process of plentiful watering, on shade trees newly planted in naturally dry ground, and have always found it to be effectual. My practice has always been to water all plants standing in open ground plentifully, in preference to frequent light sprinklings, and I have never, to my recollection, been disappointed in its success R. M. CONKLIN.

Saving Corn Fodder.

MESSRS. EDITORS—Having seen different modes of saving corn fodder in the Cultivator, I wish to give the readers of your paper my method.

I cut it down and let it lay until it wilts—then tie it up in small bundles, and if the weather is clear, I put three or four bundles together, and let them stand two or three days. Then put fifteen or twenty bundles together; then tie three or four bundles together with a grass band about the middle, with one or two more bands above the first, so that it will taper off to the top, and set this on the top of the large bunch, spreading out the stalks equally on all sides. Thus stooked, I let it remain for a month or more before hauling it to the barn. By this time the stalks are well cured, and there is no danger of their spoiling. When drawn to the barn, I pack them closely. I have followed this mode for twenty years, and have never lost a bunch since I adopted it, though I have sometimes tied up the corn as soon as it was cut. The greener the fodder the smaller the bundles should be. W. C. *Randolph Co., N. C.*

Weaning Calves.

MESSRS. EDITORS—By reading a piece in your paper about feeding and weaning calves, I am induced to make some remarks in regard to my own experience.

This year I have fed five calves with half the labor and better success than I fed three last year. My plan is to let the calf be with the cow until the third day; then take it away, and commence feeding. Set the milk twenty four hours; then skim it. Then I take good hay and put it in a kettle and steep it well, until the liquid is of a dark color. This liquid is sweet, and a very natural nourishment. Add about one-half of this liquid or hay tea to half of milk. Pour the hay tea into the milk while warm, so as to heat the milk to the right temperature. The old process of heating milk is more apt to burn, and it will sour sooner. After two or three weeks, I feed them sour milk with the hay tea mixture occasionally. I feed them about eight quarts apiece three times a day, for about two weeks; then I think twice a day will answer. I find that calves fed in this way thrive better and are fatter, and are more hardy than when fed on new milk alone, or allowed to run with the cow, and it is also more profitable to the farmer. I made from four to five dollars a week from the five cows, by selling the milk. The nutritive qualities taken from the milk are supplied by the hay tea.

As cattle have become high and scarce, I think farmers should pay more attention to the rearing of young stock. A SUBSCRIBER. *South Salem, N. Y.*

THE HORSE SHOW AT SPRINGFIELD—at which we hoped to have been present, took place last week, and appears to have been remarkably well conducted, and successful in drawing out a fine display, as well as a multitude of visitors. The number of horses present, although not very large, is stated to have included a good representation of different breeds, and a greater proportion than usual of really valuable animals. We have not room before going to press to notice the exhibition in detail,—and hope to receive before next week a better account than can be made up from the materials now at command. The receipts were in the neighborhood of $10,000. Among the most interesting incidents was the exhibition of a team of four horses by L. B. Brown, Esq., of New-York, one of them aged 29 and another 25,—still however as sprightly as many much younger horses under the ordinary usage and frequent abuse from which this noble animal suffers.

Downing's Fruit and Fruit Trees of America,

REVISED AND CORRECTED BY CHARLES DOWNING.

THIS work has been long and eagerly looked for by pomologists, and now that it has appeared we are not disappointed in its character. The first treatise—that of A. J. DOWNING—as all our readers know, was a work of great value—not so much on account of its originality, for the arrangement was an accurate copy of Kenrick and Lindley, and most of the fruits had been described in those works and in Hovey's Magazine, and the Catalogue of the London Horticultural Society; but the clear and pleasing style of the author, and the confidence which his reputation had inspired, made it just the book that was wanted. Of the two brothers, we always regarded CHARLES DOWNING as the more thorough and accurate pomologist and since the appearance of the work as first published, he has devoted a vast amount of labor and research in adding to his already extensive knowledge of the fruits of our country. All his additions, therefore, to the previous editions, render it now the most complete and valuable contribution to American Pomology, that has ever appeared.

Our readers may judge of the amount of these additions, when we state that while the first edition contained about *one hundred and seventy* descriptions of APPLES, the present has increased the number to more than *six hundred*, or nearly four times as great as at first. The number of PEARS has been augmented from *two hundred and thirty* to *five hundred and sixty*. Large additions have been made of other fruits. But it is not merely an increase in numbers that imparts value to the work; it is the great care and accuracy which mark every page, and the true character given to nearly every fruit in this large collection.

The arrangement of the more important fruits has been altered, discarding the separation into summer, autumn and winter varieties, and substituting divisions according to the excellence and value of the sorts. For example, among apples, there are 72 of those that are "well known, of excellent quality, and good habit;" over 400 of the second class; and over 120 rejected or superseded varieties. Dividing fruits in this way is very difficult in some instances, requiring a wide and accurate pomological knowledge; but the task has been generally performed with distinguished ability. There are a few instances in which many cultivators would vary this part of the arrangement; as for instance, in placing the Lady apple, Williams Favorite, Roman Stem, and Garden Royal, and such new varieties as Richards' Graft, Richmond, Evening Party, Fulton, and Wood's Sweet, in the first division, where "excellence, *well known* character, and good habit," are combined,—while the following are placed in the second class, viz: Benoni, Carolina Red June, (the most valuable summer apple at the west,) Danvers and Tallman Sweet, Late Strawberry, Dyer, Oldenburgh, Fallawater, Fall Orange, &c. Some of these are generally regarded as equal in quality to Rome Beauty, Green Sweet, and others of the first class. Among the PEARS, we observe Kirtland, Ott, Church, Boussock, Bloodgood, and Dix, in the first class; and Louise Bonne of Jersey, Duchess d'Angouleme, Glout Morceau, and Ananas d'Eté in the second. We think there would be a large vote among pomologists for arranging some of these differently.

We observe a very few statements from which perhaps we might differ—as for example, where we are informed that Hovey's Seedling strawberry "has *everywhere* proved superior for all general purposes, to any other large fruited kind"—where Burr's New Pine is termed only "medium" in size—where Peabody's strawberry is classed with the Hautbois, and in classing Child's Supurb (grape) with American Sorts. The figure of the Ananas d'Eté, pear, is not that of the variety generally known in this country by that name, which is accurately figured and described in the third volume of the Horticulturist. We do not find the Sapson apple described, nor the Early Barnard peach, one of the finest market sorts in western New-York. Red Check Pippin, a common synonym of Monmouth Pippin, is omitted, and "Rough and Ready" given as a synonym of the Primate,—a name never used, only given by an obscure and uninformed cultivator, and not worthy of being retained. These are about all the objectionable points we have observed, in a rather hasty examination of the pomological part of the work,—which, as a whole, we consider far more accurate than any work of the kind that has ever appeared in this country.

The First Part of the work,—treating on general management and cultivation, is very nearly as A. J. Downing left it, and does not contain the information now sought on the subject of pruning and training generally, and the management of dwarf trees in particular. On these subjects *Barry's Fruit Garden* will be indispensable to every cultivator who would understand the art thoroughly.

We observe that the error, that the failure of the Virgalieu pear in some districts is owing to exhaustion of the soil is still retained. Numerous instances have been cited where young trees, on *new soils*, have produced the same results. If, as we are told, the soil along the sea-coast fails to produce good fruit of some varieties, because it has been exhausted by long cultivation, why is it that the same sorts in parts of Europe that have been cultivated for so many centuries, attain such perfection?

The present edition is about one-fifth larger than the first, and contains 750 duodecimo pages, among which are 40 pages of index. The descriptions of the less valuable sorts have in many instances been condensed, and altogether the book constitutes a very compact and rich magazine of pomological knowledge, especially valuable to all who wish to investigate the character of the numerous varieties of fruit now in cultivation from American and European sources.

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Cider, Champagne Wine, &c.

An inquirer in the Co. Gent. of Sept. 17th, wishes information in regard to the production of Champagne Wine from cider. I enclose the formula of an old manufacturer and dealer, (as may be found in the Am. E. Dispensatory, by J. King, M. D.) which has the reputation of being equal to the best foreign article:

Take of good cider 28 gallons,
4th proof brandy, 1 gallon,
Genuine Champagne Wine, 5 gallons,
New milk, 1 pint,
Bitartrate of potassa, ½ a pound.

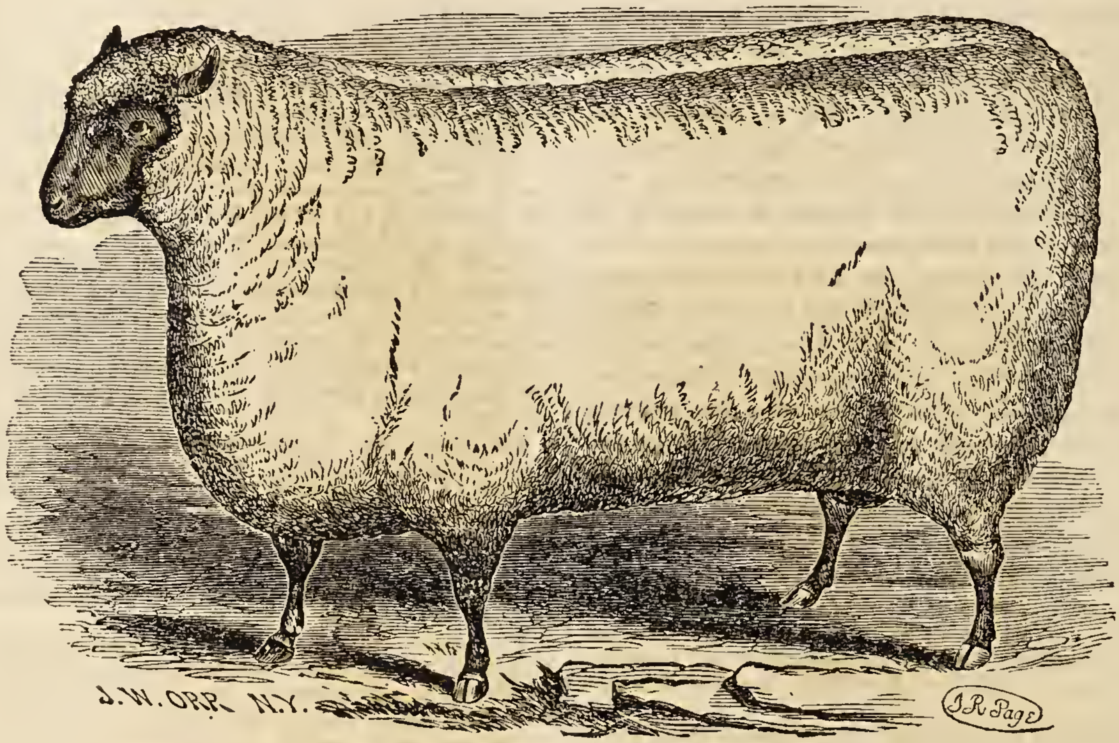
These are mixed together, allowed to stand for a time, and bottled while fermenting. Wire down the corks.

Clarified Cider.

Mix one quart each of lime and clean, dry ashes, and two quarts new milk. Pour these into a hogshead of cider just from the press. In ten hours it is fit to rack.

Cider Wine and Champagne.

An excellent article may be made by adding three pounds sugar to each gallon of clarified cider, letting it stand three months to ferment. By bottling the above, and adding to each a small lump of sugar, a new fermentation will be excited. Wire down the corks and you will soon have fit for use, proper sparkling cider champagne. H.



South Down Ram "Frank,"

The property of, and imported by J. C. Taylor, *Holmdel, Monmouth Co., N. J.*

The above ram was selected by Mr. Jonas Webb for Col. Morris of Mount Fordham, expressly to breed on the get of "Young York." At Col. Morris' great sale, in June, 1856, this sheep was in England, and was the property of Mr. M. Mr. M. transferred him to Mr. Taylor, who imported him, together with a lot of five ewes, and they arrived in October of the same year, in time to breed him to his entire flock, and he has now some thirty head of increase from him.

"Frank" was winner of the first prize in his class at the Monmouth County Show, held at Freehold—also the first prize of his age at the New-Jersey State Show, held at New-Brunswick, 1857.

The State Fair at Buffalo.

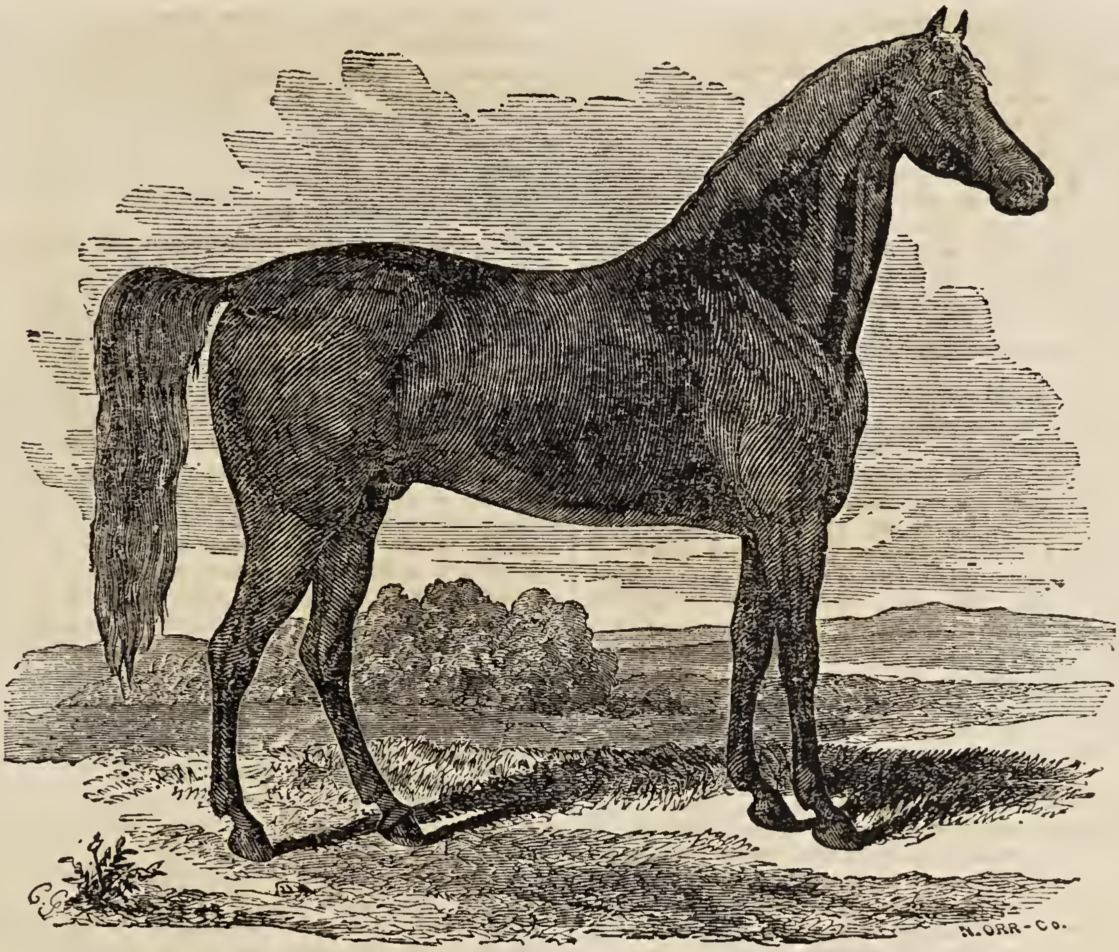
With a bright sun and clear air, grounds and roads neither too wet nor too dry, and the temperature at the best and pleasantest medium—it would have been strange indeed, if last week had not witnessed a large attendance at our State Society's Buffalo show. In some respects a superior exhibition, as a whole it compares favorably with any of its predecessors. The receipts from visitors were about $15,000—the number of tickets sold having probably never been exceeded except at Rochester, where the price of admission was at half the present rates, and it consequently required a greater multitude to make up a somewhat smaller sum.

THE GROUNDS AND BUILDINGS,

If we mistake not, were of somewhat less extent than has usually been the case. The former were large enough, but the crowd proved rather too great for comfortable sight-seeing in the erections devoted to domestic manufactures, the mechanic and fine arts, fruits, &c. Had a small sum been expended in diminishing their exterior roughness—such as in extending the eaves of the buildings a foot or two, and in various other little ways, their appearance might have been rendered more tasteful and appropriate, and we should not have thought the money wasted. But altogether there was very little to complain of. The beautiful situation was the theme of universal conversation, commanding so fine a water prospect, and including a number of views from several points, of which we should be glad to present engravings if time and space would have permitted.

THE EXHIBITION OF STOCK.

The Show of *Short Horns*, was not a large one. It included, however, fewer inferior animals in proportion to its numbers, than usual. J. O. Sheldon, Esq., of Geneva, showed a very select lot of females, noticed in our columns some months since, and now vindicating all that was said of their excellence by the premiums they received—first prizes being awarded two—one "imported" and the other a "three year old," and first and second prizes respectively to two others in the class of "two year olds." As we believe the *Alderneys* shown by Mr. S. were the only ones on the ground, we mention here that neither of his four beautiful samples of the breed would have had reason to fear competition. "Echo of Oxford," the Short Horn bull shown by E. Marks of Camillus, added a blue ribbon to his previous well earned laurels, and the cows "Bloom 2d," and "Miss Belleville," (imported) attracted the attention they merited. W. M. Bullock, of Bethlehem, exhibited his bull "Prince of Wales," and a promising bull calf. C. P. Wood, Auburn, showed a good collection, including the bulls "Cornplanter' and 'Double Duke,' the cow 'Regatta,' and three heifer calves—two of them twins and very pretty. W. Hurst, Albany, showed the bulls 'Balconi' and 'Damon', and four heifers of different ages. C. K. Ward, Leroy, showed several head of nice young cattle, and Messrs. Patrick, Hungerford & Brodie, Rural Hill, Jefferson Co., their fine imported cow 'Empress Josephine.' Among other exhibitors we noticed the names of T. Gould, Aurora, (we believe not for competition,) J. S. Wadsworth, Geneseo, H. P. Reade, Hamilton, Van Valkenburgh & Mack, Lockport, J. R Calkins and E. H. Freeman, Erie Co., E. Fellows, Chili, Monroe Co., & S. A. Winston, Bristol, Ontario Co. There were a few exhibitors of this breed from Canada—among whom were W. Miller, D. Campbell, J. Robinson, R. Currie, J. Patty, J. Taylor, and others. F. H. North,



Morgan Horse Paul Clifford.

This horse received the first premium in his class at the National Fair at Springfield, Mass., in 1854. He was foaled in 1843—sire, Black Hawk.

from Conn., and Peter Stutts from Ohio, we believe are the only gentlemen from other States contributing to this department.

Devons turned out in larger numbers than any other breed,—presenting a finer show in this respect than ever before, and perhaps we may add, never excelled in the average of merit they possessed throughout. Capt. Hilton, New-Scotland, had three head on exhibition, each of which was awarded a blue ribbon. L. F. Allen, Black Rock, made nearly twenty entries. E. G. Cook, Rural Hill, Jefferson Co., exhibited a good collection. Stanton & Johnson, Ellicotville, E. C. Bliss, Westfield, A. Stevens, Genesee Co., Enoch Ottley, Phelps, E. P. Beck, Wyoming Co., D. G. Gregory, Orleans Co., J. W. Hamlin, Erie Co, S. Burtis and G. C. Moore, Phelps, O. Howland, Auburn, A. Woodruff, Schuylerville, and a number of others whose stock we have not room to mention in detail, showed either single animals or several head—all of more than average merit. A very fine display of this breed was contributed by Wm. H. Lock of Yarmouth, C. W., whose enterprise in exhibiting, as well as breeding, is deserving of high commendation.

In *Herefords*, there has probably never been a larger or handsomer display in this country. Such shows are of far greater value in attracting public attention to the real deserts of this breed than much discussion. The merits of such stock as that exhibited by M. C. Remington, Sennett, A. & H. Bowen, jr., Medina, E. Corning, Jr, Albany, Geo. Clarke, East Springfield, go farther than many words. A number of recently imported animals are calculated to be of service to the stock in this country. There must have been from forty to fifty head shown altogether.

Ayrshires were few in number, but by no means poor in character. Of the three head shown by Patrick, Hungerford & Brodie, one may be pronounced an almost perfect model of a milch cow, and the others were scarcely her inferiors. O. Howland, of Auburn, was the owner of the prize bull, also a fine animal.

Working Oxen were not present in very large numbers. The excellent yoke of Capt. Hilton took the first prize, and others (including steers) owned by H. Dixon, East Bethany, M. Salisbury, Ellisburgh, T. Leggett and M. Roberts, Henrietta, A. H. Bowen, Jr., Medina, O. Howland, Auburn, were well matched and broken. *Fat Cattle* were a good show—J. S. Wadsworth of Geneseo, being the largest exhibitor. Among others were W. F. Baker, Henrietta, O. Howland, Auburn, Thos. Kimber, Syracuse, &c One heifer, the ownership of which we have forgotten, was most astonishing for size and fat, and several of the steers were unusually fine.

We ought not to omit mention of the Short-Horns imported by Thomas Betts. They included several females of rare excellence, and were held at prices surprising to hear in the present condition of individual and public finances. One of them was the fattest two year old heifer we ever saw, and was rounded out nearly to the ideal of Durham perfection.

There were one or two head of *Galloways* exhibited, a black polled breed, as our readers are aware, apparently having much to recommend it, where better kinds cannot be made to prosper. A pair of small, stunted cattle, one a 6-year-old cow, and the other a heifer 3 years old, attracted considerable attention, and were generally looked upon in the light of *dwarfs*. We were informed, however, that they were the genuine *Kerry* breed, as it is found in the mountainous parts of Ireland, running wherever a goat can go, and subsisting on about as little and as coarse a kind of nutriment. Our informant was from that part of the country, where he had frequently met them. The breed, however, is seen comparatively rarely in its pure state, even there, as what generally go under this name have been crossed upon larger breeds, until they have attained the size we see them represented in the books as possessing. Those on exhibition would have been regarded with additional interest if they had been considered as types of a class on which the peasantry of forbidding and almost inaccessible acclivities are obliged to depend to a great degree for means of prolonging life. Their milk is said to be of excellent quality, and great in yield, in proportion to the size of the cow and the character of her food. We understood that two or three quarts, three times a day, was not an extraordinary yield.

The show of *Horses* was considered by competent judges not quite so good or extensive as some other departments of the exhibition. Under the class of "thorough-bred," the committee report that no pedigrees were furnished, and that they could not, according to instructions, award any premiums. There was a fair display of Draft Horses, of Morgans and their crosses, of stallions, and a number present from Canada and other States. We could not venture to specify the meritorious, except at the risk of injustice to many that we did not have the opportunity of seeing, and as we shall hereafter publish the awards of premiums it is unnecessary. E. C. **Bliss** of Chautauque Co., exhibited a fine *Jack*, and Mules were shown by the same gentleman and by L. I. Waters and John Coatsworth of Buffalo, and P. Danforth of Cayuga Co. A fine display was made by the horses of the Am. Express Co., which turned out a large number of excellent teams. The young people were pleased with two or three pairs of ponies,—in connection with which we may perhaps mention a pair of handsome dogs before a little wagon, well matched and broken to harness, and fearlessly driven over all parts of the ground.

The *Sheep* on the grounds constituted a pretty good representation of the different classes of Long, Middle and Fine Wooled—including an excellent show of Leicesters by Patrick, Hungerford & Brodie; very superior South Downs by E. Corning, Jr., Saml. Thorne, Thos. Betts, and L. F. Allen; Spanish Merinos by T. C. Peters, O. Howland, R. Burritt, and J. Haswell; Silesians by W. Chamberlain; French by J. D. Patterson of Westfield; Saxons by O. Howland, while numerous other exhibitors also showed good animals in nearly all the classes mentioned. Cross breeds of fine and coarse wool were shown by E. G. Cook, S. H. Winslow, D. J. Lee, O. Howland, R. Baker, A. Riggs, A. & H. Bowen, and others. The contributions from out of the State included Long Wooled from Geo. Miller, Markham, C. W., Silesians from W. H. Ladd, Ohio, Merinos from E. Porter, Rutland, and E. Rich, Sudbury, Vt., and Middle Wooled from A. Spencer, Whitby, C. W.

The turn-out of *Swine* was small. There were, however, several choice lots. E. C. Bliss of Westfield, B. S. Carpenter of Elmira, E. S. Hayward of Rochester, and C. E. West and W. Granger of Buffalo, contributed creditably to the pens of small breeds, and Messrs. West, Murphy, Riter and Hayden of Buffalo, and Bennett of Cheektowaga to the large breeds. Mr. Bliss made an excellent and quite extensive display.

We have not room for more than a very brief notice of the *Poultry*. There was quite a large number of fine birds shown—some of the best of them by D. S. Heffron of Utica, E. S. Ralph of Buffalo, E. G. Cook of Rural Hill, and E. A. Wendell and W. R. Hills of this city. In Turkeys, Ducks and Geese, we also noticed the contributions of L. F. Allen and O. Howland.

THE MACHINES AND IMPLEMENTS.

The collection of *Mowers and Reapers* was respectable, but not extensive, and consisted mostly of those which were tried the past summer at Syracuse, among which we observed Kirby's, Wood's, Ketchum's, Allen's, Heath's, Warder & Co.'s, Ball & Altman's, Forbush's, and others. A new mower, or one we had not before seen, was exhibited by W. **Gage** of Buffalo, the inventor—it had not been tried at any exhibition nor manufactured for sale, its inventor not having the means for doing so, but we were pleased with its simplicity and several good points in construction, and it is evidently worthy of further notice. The inventor informed us that he could manufacture it for $28, and it might be retailed for $75.

Winegar's lever gate, which opens and shuts easily without winding a weight, by the slight pressure of a lever without moving from the saddle or carriage seat, attracted much attention; and its durability was proved by its constant use by spectators during the several days of the fair. **Horace L. Emery** was of course on the grounds, with his various admirably constructed machines, namely, railway horse-powers, thrashers, and separators, cider-mills, and sawing machines. The cider press is improved to prevent the side-strain on the screw occasioned by unequal pressure, which is prevented by three screws acting at once and together; and the strength of the grater was fully proved by throwing in stones, which were scratched and torn without the slightest apparent damage to the work. The cross-cut saw machine has received one important improvement, so that the saw works with equal force both ways whether by thrusting or drawing, and cuts with great rapidity. E. D. **Hallock** of Rochester, exhibited a fine portable saw mill, which at one operation will slit, cut logs, and bore or drill. The portable grain mill "Young America," from J. B. **Wright** & Co of Westfield, N. Y., was in successful operation in grinding corn for feed; and Westinghouse's and Pitt's thrashers did excellent work before the spectators. Dederick's Vertical Hay press, and Birdsall's new clover mill, from West Henrietta, N. Y., were on exhibition.

The collection of *plows* was small—a large number were however exhibited by C. R. **Brinkerhoff** of Batavia. Among them was a new subsoiler, consisting of a share following in the furrow of the common plow and connected with it, and running ten inches deeper, and loosening the soil to that additional depth, and like the common subsoil plow, not turning it up to the surface. It is of large size, and requires a triple team to draw it in performing thorough work. A revolving, spirally cut cone, is attached to the front of the cutter immediately beneath the beam, and prevents clogging, The plow is kept steady by means of two wheels, the larger one passing in the previous furrow. It is claimed to require no holding, and to be managed by a boy in turning at the ends of the field. The price of the whole is $32, which is much too high—its merits, which appear to be considerable, require further trial to establish. The same exhibitor had one of Cottan & Hallam's dynamometers, with oil piston regulator, made in London—a valuable measurer, price $40. A side-hill plow, an improvement on Barnaby & Moore's, well known for many years, was exhibited by A. **Barton** of Syracuse. The improvement consists of a steel point, turning on the forward part of the cast-iron mold board, and keeping always in a line with the beam. There were some other side-hill plows, but none that appeared worthy of special notice.

The several halls devoted to the exhibition of machinery, tools, household furniture, articles of domestic manufacture, &c., were densely filled with many hundreds of interesting objects, which our limits forbid enumerating, even in a general way. We cannot, however, omit noticing **Atwater's** fifteen dollar sewing machine, which is certainly a remarkable invention, both for its simplicity and ingenuity, and it appears to possess all the durability and efficacy claimed for it. The fine assortment of farming tools from **Townsend** & Co., of Westfield, Chautauque Co., were well worthy of commendation for their beauty and perfection of finish.

Among the few Fanning-mills, a simple contrivance for imparting motion to the sieves was observed in the one presented by E. **Taylor** of Waterloo, N. Y. The connecting rod or pitman, is attached immediately to the sieves, and moves them backwards and forwards, instead of sideways as usual. We observed a good collection of straw cutters, corn-shellers, churns, mowing machines, &c., from the Buffalo Agricultural Works.

Page's Perpetual Lime Kiln, erected on the ground, continued in operation during the fair. The stone is put in at the top and taken out at the bottom once every three hours. A cord of wood is claimed to burn a hundred bushels of lime.

There were several corn-planters on the ground, of various objects and pretensions, several of them of considerable merit, but want of space prevents us from giving a particular description of them.

Several scrapers or excavators were exhibited, which were mostly new. That of C. Blakeslee, of Ashtabula, Ohio, is used without turning over, the earth meredropping at the bottom, which may be raised to any required height, so as to distribute it as desired, and require no levelling. Its cheapness (about $8,) is in its favor. Another excavator, patented by J. F. Wiley & Co., is a larger and more complex machine, and is used to convey earth to considerable distances. Two scrapers are filled alternately, and the earth drops through the bottom when they are unloaded, by opening like the slats of a rolling blind. It is said this machine has been used on one of the western railroads for grading, and has saved two-thirds of the labor. It cuts out and carries a cubic yard of earth at one operation, and is worked by two horses.

Molasses from the Chinese Sugar Cane.

Messrs Tucker & Son—Having just finished the making of syrup from the Chinese Sugar Cane, I would like to make it known through the Country Gentleman We procured a mill with vertical iron rollers, at an expense of about $30—such an one as R. Peters used. The first trial of syrup making was on Sept. 15th, the seed heads having just made their appearance—375 average canes gave 100 quarts of juice—which, when boiled down, made ten quarts of syrup. I made the second trial Oct. 3d. The seed heads by this time had begun to turn brown. I crushed the cane from one-eighth of an acre—got one hundred and thirty one gallons of juice, which when boiled down, gave twenty-six gallons of syrup like the sample I send you. I put nothing in to clarify it but about a teaspoonful of pearlash to a barrel of the juice, when about half boiled down, and kept it well skimmed. When it is boiled down we simmer it through flannel. You will see by this, that the riper the cane the more syrup it will produce. We think that the Sugar Cane will prove a profitable crop in an ordinary season. We could not expect a fair trial of it this summer, on account of the cool weather. A. N. House. *Chester, Orange Co., N. Y.*

The syrup sent us by Mr. House is superior to any we have before seen,—decidedly preferable to the common molasses from the stores.

Messrs Editors—I know not but that you may be troubled with too many reports of this *stranger* on our soil. If so, you may cull, and lay those not wanted under the table.

In August, I reported through your paper, that my cane was too big for Mr. Lester's calves; that it was 12 feet high. The highest stalk which I measured, was 13½ feet. The seed has ripened, and I have cut and ground and boiled it into syrup. It is the same little patch which you saw my men hoeing when you were here in June—then little puny stuff. This patch was one-fifth of an acre; from which I have made 51½ gallons of good syrup; equal to the best sugarhouse molasses, or second rate golden syrup. I cut it, took off the tops and leaves, and ground it in a wooden mill, similar to a cider mill, and boiled it in sheet iron pans. I need not go into the particulars of the mode of operation, for that is given to every body already. But I will here say that I did not make my mill strong enough—it broke and gave me some trouble, and I think that one-fifth of the juice was left in the stalks. The mill should be equally as large and as strong as a cider mill.

But my object in this communication is to assure my fellow-farmers that this last "humbug" is no humbug. This syrup or molasses has become a commodity upon my table as regular as butter. At tea this evening, we had warm gingerbread and other sweet cake made with it. It is superior to any ordinary molasses—second only to the best of maple—a clear golden color, a delicious, wholesome, nutritious article for the table. I have carried it to market and it brings one dollar per gallon.

Now this is a fixed fact, that the *China Sugar Cane Molasses* has become a staple product of my farm, and a very profitable one at $1. It can be afforded at two-thirds or one-half the cost of a bushel of wheat. I have got one acre on my prairie farm, which I to-day have begun to cut; it having been planted the last of May, (three weeks later than this by my house,) the seed is just beginning to ripen. It takes it ten days or two weeks longer to ripen than it does our large Dent corn. I suppose this will yield 200 gallons of syrup. Within 20 miles of Muscatine I have heard of 65 acres, which will probably make 13,000 gallons. Caution, farmers! How many acres in each county will it take to supply it with molasses?

The great sugar refinery at St. Louis has made sugar from this same kind of molasses this year.

I predict that our sugar will be made from this article by large sugar houses in each of the principal towns, and we shall take our barrel of molasses to market the same as we now do wheat; but remember a far less quantity will supply the demand.

It may be thought that the Middle and Eastern States cannot raise this Sugar Cane to so good advantage as our rich corn lands of the West. Four-fifths of the cost of this syrup is *labor in manufacturing.* All such manufacturing is done cheaper at the east. Suel Foster. *Fountain Hills, Muscatine, Iowa, Oct.* 3.

When we saw Mr. Foster's sugar cane patch on the 10th of June last, it was from one to two inches high, of a light yellow color, and most unpromising appearance, and we little anticipated so favorable a report from it as is given above. Knowing Mr. Foster's reliability, and the qualification of himself and family to decide as to the quality of the syrup produced, we look on his statement as affording the best evidence which has come to our notice, of the value of the Chinese sugar cane as a syrup-producing plant for the middle and perhaps the northern States. We hope he will send us a full account of the manufacture and product of the acre of sugar cane to which he alludes.

Messrs. Editors—I have been experimenting with the Chinese sugar cane, but I am not entirely satisfied with my experiment. I deem it anything but a perfect trial. My rollers gave out, and I had to resort to other means against my will. My corn was cut, and had to be worked up without delay, or else they would spoil. I put it through the following process: I cut 69 stalks into short pieces, and boiled them in spring water to extract the juice, but you may know that I did not get the half of it, as I had nothing in the shape of a press to press the stalks after boiling. I had about six gallons of water in the beginning, and when I drained it off the stalks I had about four gallons, which I put on to boil down to syrup, and I was agreeably surprised to find, when I got the water evaporated, that I had some little over a quart of syrup or molasses, and that of a quality inferior to none that I find in the country stores—I will not except Tawling's syrup, which is a first class molasses, and sells from ninety cents to a dollar per gallon.

I believe a man with a pair of cast-iron rollers, hung in an iron frame and geared together at one end by cog-wheels, with a good heavy balance or fly-wheel on one side, and a crank on the other—put up similar to a Yankee self-sharpening straw and fodder cutter—could press out juice and make syrup enough for his own family use, and that too at a cost of from 12 to 20 cents a gallon. All it needs is boiling in a brass or copper kettle, adding about a teaspoonful of quick or caustic lime to every four gallons of juice, to clarify it and neutralize the acid—a piece of fat pork, about two inches square and half an inch thick, will have the same effect.

I want to put up a mill this winter, which I think I can do out of wood, which by man-power will press out an acre in a reasonable length of time, that will not cost me five dollars in laid out money, as I am a carpenter and can do the work myself in odd times through the winter. Howard Williamson. *Willistown, Chester Co., Pa., Oct.* 3, 1857.

Farming in New Hampshire.

During the week ending the 3d inst., (Oct.) we made an agricultural excursion through a portion of the Merrimack river valley, N. H., visiting a great number of good farms; making particular inquiries respecting the crops of the present season, and in examining them in reference to their general farm management, culture, &c. We were highly gratified in noticing the great agricultural improvements that have been made in this section of the old Granite State within the past fifteen years. Most of the farm houses at which we called, whether they were the large double house, or the more cozy looking cottage, were all built in the most durable manner, and finished and furnished in a style bespeaking the wealth and taste of their owners, and a thrift and *independence*, not generally to be found in the cities at *this time*. But the desire for good substantial barns, has kept pace with that for good houses. Every farm we visited, with the exception of two, had cellars under them; many of them had walls of split granite laid up as regularly and handsomely as are the undrest granite stores and churches of the city. The cows kept on many of the farms, ranged from eight to eighteen in number, and in nearly every instance they are kept in the hovel at night through the year. Muck and other absorbents are used to mix with the droppings of stock. Since this plan has been pursued, many of the farmers think the quantity and value of their summer made manure has been quadrupled, and the heavy growth of aftermath or second crop of grass, in their fields, fully corroborates the correctness of their opinions.

The crops on thousands of acres of now cultivated lands that we saw, might, with proper drainage be readily doubled. Many farmers have commenced the good work, and doubtless, a very few years hence, underdraining will become one of the fixed institutions of the New Hampshire farmers. We examined many fields of large and fully ripened corn, as good as is raised any year, and we saw also other fields of large well grown corn, that were as green on Tuesday, 29th Sept., as they were in July—(the corn in the milk.) The next morning a "frost and a freeze," had nearly ruined these fields as far as the crop of corn was concerned. Had the land upon which these late crops of corn were grown, been thoroughly underdrained, the result would probably have been from 60 to 80 bushels of sound corn instead of that amount of pig corn. We saw in Hollis, a field of three acres of thoroughly ripened *Brown corn*; it was large and evenly grown. A few days previous, a committee of the County Society examined it, it being entered for premium They selected one square rod, husking and measuring it in the field; there was five pecks, good measure, and yielding 200 bushels of ears per acre. After making all proper allowance for shrinkage, we put the crop down at from 75 to 80 bushels per acre of shelled corn, say next January. But we are happy to state that we saw several fields that were thought to yield a larger amount. One field of two acres produced about eight good ears to every five stalks—we never before saw a field producing so large a number of twin-bearing stalks. Up to the middle of August, the potato fields promised an unusual crop, but the rust pretty generally prevailed, and the result is less than an average crop; but the rot is not at all prevalent. We put the question to dozens of farmers, "Do your potatoes rot this year?" The reply was, "none to speak of."

The Phin, couch or witch grass, abounds upon many of the farms. To see the ground of many cornfields as green as a lawn, from the abundance of this kind of grass, looked to us as slovenly farming; but several farmers assured us they would on no account have it eradicated from their farms. They say on their stocked down grass lands it does not materially interfere with the clover, herds grass, &c, but after these have disappeared, the Phin will give a heavy yield of the very best kind of hay for several years.

Much attention is given to the growing of green food for milch cows during the summer, especially by those farmers that sell milk. Southern corn, sown in drills, is mostly used for this purpose. We saw on the highly cultivated farm of Nathl. White of Concord, a most luxuriant patch of about one-third of an acre—a portion of it had been cut. The week previous to our seeing it, the farm was visited by J. O. Adams, Secretary of the New Hampshire State Ag. Society, and other gentlemen. While there they had a portion of the ground measured, and the fodder cut and weighed. As they figured it out, there was grown on the third of an acre sixty tons—or at the rate of one hundred and eighty tons of green fodder per acre. We saw a patch of sugar cane. The owner had cut and weighep a certain average square. This yielded 33 tons per acre; but we saw larger grown cane than the above named. At one or two places we tested samples of the cane syrup, but think but little of the cane here has sufficiently matured to make a first rate syrup. The hay crop was extra; spring wheat generally light—injured by the weevil, rust, &c. Some few farmers have raised fair crops of winter wheat.

At many farm-houses we were treated with domestic wines, generally that made from currants, and in most instances the wine was of superior quality. At one farm-house we partook of some superior grape wine manufactured from the domestic grape—the worthy old farmer assuring us that it was the pure juice of the grape, having neither strychnine or any other poisonous ingredient in its composition. We think it would be well for farmers generally, to cultivate more extensively the currant and the grape for the manufacture of domestic wines for family use.

The fruit crop is very light. In a few instances we saw a fair crop of apples, and in one or two places a tolerable crop of peaches—enough to explode the statement that when the mercury falls to 12° or 14° below zero, the cold will kill the blossom buds of the peach. In most parts of this State, the mercury the past winter sunk from 30° to below the freezing point of mercury, and yet the peach buds in many localities survived, and we have freely partaken of New-Hampshire peaches the past week.

We took a ride over a portion of the extensive farm in Franklin, formerly owned by the late Mr. Webster. For this section of the country it is a large farm, containing some eight or nine hundred acres. Mr. Tate, its present owner, appears to be an enterprising, energetic man, well fitted to manage such an estate. Since it has been in his occupancy, he has nearly quadrupled the amount of hay and stock upon the place. He has twenty-one acres of corn, that will probably yield fifty bushels per acre, and other farm crops to correspond. A heavy rain, and want of time, prevented our examination from being as thorough as we could have wished. Several of the rooms in the house, and the furniture, pictures, &c., remain as left by the great statesman. Mr. Tate has promised us a written statement of the farm, its products, improvements, &c., since it came into his hands, and we may perhaps refer to it again.

By drainage, irrigation, manuring, and labor skillfully applied, the farm products of this State could be quadrupled in a very few years.

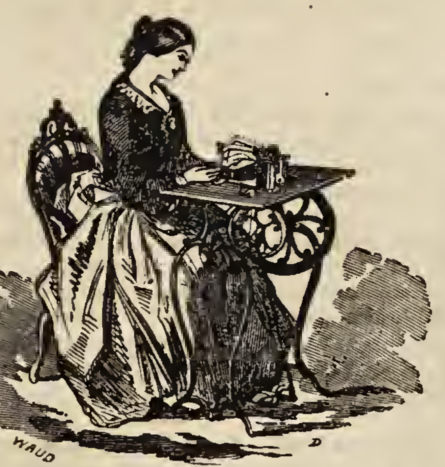
In the vicinity of the manufacturing places, many farmers are in the practice of selling large quantities of hay, yet these farms are annually improving, without the purchase of manures to any great extent. The muck beds, barn cellars, the tying up of their cows and some other of their stock in hovels the year round, and skill in collecting other materials for enriching their grounds, solves all mystery in this matter. B.

Sewing Machines for the Family.

Messrs. Editors—In a late number of the "Co. Gent." was an inquiry respecting "Sewing Machines." Whether the query has been answered, I know not. Said "Gentleman" not calling upon me with accustomed regularity during my eastern peregrinations, I am not so well informed of his views and opinions as when receiving his weekly visits quietly in my western cottage.

But to come to the point. I have been investigating the subject of sewing machines as a hoped-for relief to our western farmer housewives. Perhaps my *conclusions* may not come amiss to my *Eastern* sisters.

I gathered my information not from the sale-rooms of the articles in question, but from the experience and observation of those who are familiar with the subject, and could vouch for their utility and excellence. Profiting by this information, and after due practice upon one of "Wheeler & Wilson's" machines, I have ordered one sent to my western home. I fancy *I* shall have only to *fix* the work, and my *boys* as well as girls will *in turn* claim the fun of "plying the shining shaft."



Medium, on Plain Table. Price, $100.

This machine is simple—the use and arrangement of the different parts readily understood upon examination or explanation. The *moving* of the foot pedals is neither fatiguing or disagreeable, and the slight *click*, as it makes its 1500 stitches per minute, not annoying to the nerves of hearing. By practice and the use of a little invention, one is surprised agreeably in being able to perform much more of the various kinds of family sewing than even at first anticipated. The ease with which that heavy burden of household sewing is thus expedited, is perfectly felicitous to think of.

The price of the machines of *all* the *reliable* manufactures, is considered by many objectionable. I would only say, from the knowledge I have gained, although I had the offer of a $10 machine as a *gift*, I preferred to purchase one of "Wheeler & Wilson's."

The great saving of time and strength by the use of one of these machines, may be agreeably and healthfully, as well as *remuneratively* employed in other occupations. The riddance of that *extra* member of the family, the seamstress, whose stranger presence would be considered, to say the least, superfluous, were it not an absolute necessity, may be set down in the "Cr.' when considering the price of a sewing machine.

Much as I love my needle, the necessity of its constant use is burdensome. I should be glad to see *all* our women relieved from the drudgery which sewing becomes when a numerous family claim their constant stitchery. It is this wish which has induced me to indite this epistle. Elsie. *New-York, Oct.* 8.

Edward Everett's Address at Buffalo.

Mr. Everett began by alluding to the peculiar position of the present locality of the fair—its proximity to the dominions of the British Government—its connection with the great chain of lakes, and the cataract of Niagara—and of the great artificial link between the two nations, the suspension bridge. He next proceeded to allude to the connection between the various pursuits of civilized society; and after remarking that orators on every great public occasion, generally claimed for the particular pursuit on which they were speaking, pre-eminence above all others, could not fail to admit that agriculture was unquestionably the most important of all. In proof of this opinion, he stated that if only eight or ten articles of agricultural product were withheld from the human race for only ten days, the whole would perish in the most agonizing forms of dissolution. To enable the mind to conceive at a glance, the amount of human food of agricultural production, he stated that the human family would fill five tables, very compactly seated, extending five times around the globe, and that these tables would require replenishing two or three times a day. After speaking of the connection of agriculture with various sciences, he cited several interesting instances where irrigation and other modes of fertilizing had proved of the highest benefit. In the course of his remarks, his recollection of his subject seemed to fail him, and referring to his notes he humorously remarked that he was compelled to do as financial men had to in these hard times, "trust a little to paper."

He took a most interesting and sublime view of the great laboratory of nature, every where going on in connection with the culture of the soil and the growth of plants, worthy of the attention of the farmer, not only on account of its dependance on profit and skill, but on the enlargement of the human mind. Many interesting anecdotes were related in regard to the early introduction of various plantsof agriculture and commerce—and the economy of the various processes in the growth of plants, and in the habits of animals, and the immense improvement effected by means of agricultural machinery, were dwelt on at some length. Passing from these subjects, and the quiet and manly pursuits of the farm, he administered a most eloquent and withering rebuke to the gambling of stock-jobbers in the cities—eulogised the practice of some of the most powerful monarchs of ancient and modern times, in taking daily exercise in cultivating the soil, and in rigid habits of temperance, in connection with which many interesting historical facts were stated. He closed his remarks with an eloquent appeal to the beauty, the glory, the miraculous operations at all times going on in nature, as an overwhelming proof of the power of the Deity, and of the truth of miracles, which produced a most thrilling effect on the great audience assembled on the occasion. The address, which appeared to be chiefly extemporaneous, was two hours in length—too long for a standing audience—but listened to all that time with deep attention by all in attendance, which his surpassing eloquence could not fail to produce.

Inquiries and Answers.

Clarifying Wine.—Will you have the goodness to inform me through the columns of the Co. Gent, the most approved mode of clarifying wine made from the Isabella grape ? I have heretofore found it difficult to thoroughly clarify my wine. O. H. W. [Will some of our readers who have had the necessary experience, answer the above ?]

Rice Hullers.—Among the numerous and valuable inventions of the day, is there any machine *that can be relied on*, for cleansing rice ? It is a crop which can be easily and profitably grown in this section of country, but few raise enough even for family use, on account of the great difficulty of getting it prepared for the table. If there is any such machine, can you give me through the Country Gentleman such information respecting it as to its size, weight, price, capabilities of work under one or two horse power, &c., as may enable me to judge of the expediency of getting one, and thus oblige one of the patrons of your valuable paper. Smith Gibbs. *Catawba Co., N. C.*

Grape Vines.—If you will inform me through the columns of the Cultivator, when is the best time to remove a grape vine, you will oblige. C. D. Gray. *Castle Creek, N. Y.* [After the middle of autumn, or early in spring.]

R. W. J.—Bethlehem, Pa. We can send you the vol. of Transactions referred to, post-paid, for $1.30.

Water Rams Again.—Some one asked (the 18th of June last) in the Country Gentleman, for the experience of any one that had tried the Water Ram. I had one put in operation the 19th of October, 1853. It has worked perfectly ever since without any expense whatever. Instead of its being "a nuisance," as A. L. E. of Philadelphia says, in the Country Gentleman of Sept. 10th, we think it a very great luxury to have a stream of fresh cool water flowing in the kitchen constantly. The Water Ram is the most labor-saving thing we have on the farm. W. J. Davison. *Chelsea, Mich.*

Onions.—Where can I get information on the culture of the onion—I mean on an extensive scale ? Cannot some of your subscribers furnish us with an article on the subject ? M. D. B. *Vincennes, Ind.*

Proceedings of the Fruit-Growers Convention of Western New-York.—Silas Holman, of Bolton, Mass., is informed that this Society has as yet published but one volume of its proceedings, and it may be sometime yet before another is issued.

Planting Peach Stones.—Please inform me how I am to plant peach stones successfully. T. R. M. *St. Monique, C. E.* [Subject them to freezing and thawing for one winter to loosen the shell, then crack them early in spring, and plant the kernel about two inches deep.]

Destroying Blackberry Bushes.—Please inform a subscriber through the Co. Gentleman, the best and cheapest method of destroying bushes—black and raspberries. A. E. W. *Rushford.* [Mow them with a stiff scythe a little after midsummer. If the ground can be tilled sow buckwheat; or what is better, corn in thick drills for fodder, at the rate of three bushels per acre, as this crop, sown late in spring, is very efficient in smothering weeds, in connection with a little horse cultivation.]

Pond Mud.—I wish to inquire the best mode of managing pond muck, as I have a quantity which I wish to haul from the pond this fall, and apply it next season. Is lime good, and if so, how much per load ? A. A. M. *South Wilbraham, Mass.* [Use it, by all means, if practicable, as a component part of *compost*—the muck may be applied in alternate layers, a few inches thick, each. If plenty of yard or stable manure can be had, it may be half and half—if scarcer, one quarter manure will do. The dryer the muck, the better, as it will absorb more of the liquids; but if quite wet when used, it will be worthless as an absorbent. A small quantity of lime may be added at each layer, say one fiftieth.]

Use of Lime.—I find in the September No. of the Cultivator an article in reference to Mr. Johnston's mode of farming, and I find lime to be a great source of Mr. Johnston's "luck." Being a young hand at the farming business, will Mr. Johnston be so kind as to inform me how lime and salt are to be applied to wheat. Whether before or after sowing the crop. W. E. Neal. *Charleston Home, near Maysville, Ky., Sept.* 8.

Destroying Plantain.—I wish you would tell us in your Co. Gent., how to kill *Plantain.* It *bothers* me much. C. G. S. *Worcester Co., Mass.* [Some remove it clean from the ground and bury it in holes or trenches—others, with perhaps more economy, remove it wholly and feed pigs upon it. Small fragments easily take root, and it is better to draw it up at the root with the fingers, than to cut it up with the hoe. Persevering labor soon accomplishes the desired object.]

Perpetual Climbing Rose. — Can you or your readers inform me whether there is a *hardy monthly* (or *perpetual*) *climbing* rose, and if so, what it is and where it can be had ? Laura. *Marshall, Ill.* [We know of no hardy climbing rose, that is strictly a perpetual one. There are some that bloom *occasionally*, as for example, the Perpetual Pink, (prairie,) but it does not continue blooming, and should not be called perpetual.]

Patent Office Report. — Could you inform me through the columns of the Co. Gent., where I can procure a Patent Office Report for 1857, and what may be the price of the above ? By so doing you will confer a favor on F. M. [The Patent Office Report for 1857 will not be published until about this time next year. The Report for 1856 has but just been issued. You can probably get a copy of it by applying to the member of Congress from your district, or to the Commissioner of Patents. We do not know that they are for sale by any one.]

Salt and Lime on Wheat.—In answer to W. E. Neal, I would say, I apply the lime immediately before sowing the wheat. I apply salt to the land either before sowing the wheat or immediately after. I have known some to apply it in the spring, say April, on the wheat, and with good effect. Mr. Neal could sow a barrel (280 lbs.) to an acre as soon as he reads this, and another barrel on another acre in spring, and see which does best, or if either is worth the cost. I have found it do a great good some seasons, and most good when we had but little rain for some time after it was sown. John Johnston.

Suffolk Pigs.—In answer to an inquiry for Suffolk pigs in the southwest, I would say that I can supply a few pairs of *pure* bred, two or three months old, delivered on board of packet at Hannibal in box, at $25 per pair. My stock I obtained from Boston, and know them to be pure. Any of your correspondents can address me by mail at Palmyra, Mo. W. C. Anderson, Jr.

Beardless Barley.—Will you have the kindness to advise me if you know of such a grain as beardless barley, and if so, what is its relative yield, where can it be had, and at what price ? Thos. B. Johnson. *Nashville, Tenn.* [Will some of our correspondents please answer.]

White Poland Oats.—Can you, Messrs. Editors, tell me anything about the White Poland Oats ? I planted some in May, and harvested them some time since, but have so far discovered nothing peculiar about them. Is there any peculiarity about them in yield or nutritive quality? P. A. S. *Quincy, Ky.* [The distinctive characteristics as described by Allen are, "a thick white husk, awnless chaff, solitary grains, short white kernel, and short stiff straw." It bears early, is prolific, but inclines to shed its seed early.]

Should red top seed be sown when seeding in winter grain, in the fall with timothy, or in the spring with clover? J. M. *Schoharie Co.* [It may be sown in autumn, if done early enough to get a good footing before winter. Or it may be sown *early* in spring, and lightly brushed or rolled in.]

Chufas or Earth Almonds.—In your issue of the 10th, A. G. E. informs you that he has the Chufas or Earth Almond under cultivation, and asks, "Do you know aught about it?" During "your pause for a reply," be good enough to take down the testimony of another victim to Mr. H. B. Lum's flash advertisement, quoting from the Patent Office Report of 1855. I procured a package of these famous nuts, and planted them carefully in a choice part of my garden, and at this writing there is an apparent struggle for the mastery between the bed of Earth Almonds and the nut-grass in the ditch at the bottom of the garden. Can it be possible that any person who had raised it or had seen it growing, could be mistaken as to its identity with the notorious nut-grass, or as it is more commonly called, beach-grass? *We* (the victims) "pause for a reply" from Mr. H. B. Lum. The Atlantic coast from Point Judith to Key West, is filled with it wherever there is sand enough to cover the hateful tubers. Were I called upon to adjudge damages and award a punishment to this Buckeye offender, I would sentence him to dine on Chufas every day for a month, using *Cirsium arense*, or Canada thistle, for a salad, and then like old Mr. Nebuchadnezzar, be turned out to grass. M. *Saugerties.* [The censure bestowed should be upon the Patent Office, rather than upon Mr. Lum, who, innocently, as we doubt not, relied upon the Patent Office Report as good authority. If our correspondent will turn to P. O. Report for 1855, p. xvii, he will find a description of the Chufa, and an assurance that it is not identical with the nut-grass]

Fleas.—J. E. W. wishes for a recipe to destroy fleas. French slacked lime strewn thickly over the ground will drive them away, no matter how thick they are. G. *Newark, N. Y.*

Grubs in Apple Trees.

After all that has been said about preventing this worm from destroying orchards, yet not one farmer and tree planter is benefitted. To exterminate them from old trees, where they have been allowed to remain undisturbed for years, or even in younger trees of six to ten inches diameter, would be a work we should not know how to perform successfully. But to save young trees from destruction, is easy enough when the work is commenced with the yearly growth of the tree. The remedy is simple, but efficient. Our method is: When the trees have been set in the orchard one year, we go to each tree about the first of September, and remove the soil from the collar of the tree, till we come to the roots; then with the back of a knife, or an instrument made for the purpose, we scrape the surface of the bark entirely around the tree; and if any insect has begun his work, we find it immediately under the bark and next the sap-wood, from one-eighth to half an inch in length. The bark is the food for it the first year; but if suffered to remain undisturbed another year, it is invariably found to have entered the solid wood, and often to the center of the tree, where it is safe from all attempts to destroy him, except by actual cutting of the tree till he can be reached by either the knife or a wire prepared for the purpose. We make this annual examination as regularly as we hoe our corn, and the result is successful, and probably the safest and cheapest method of meeting this destructive insect. In an orchard of more than three thousand trees, we believe we have not lost a tree from the grub in three years. Orchardist. *Mount Washington Orchards, Sept. 23.*

Seedling Peaches.

A. G. Percey of Newark, Wayne Co., N. Y., presented us, at the meeting of the Fruit Growers' Society of Western New-York, held recently at Rochester, specimens of a large yellow peach, apparently resembling Crawford's Late, but not so late, and which appears to be a fine variety. The specimens were oval, full, nearly three inches long, (lacking one-tenth of an inch,) of a rich orange yellow, with a tinge of red in the sun. The flesh is fine-grained, and melting--and although they were picked two weeks before maturity, they were of good quality after keeping that length of time. The growth appears to be vigorous, and the leaves have reniform glands.

Turnips and Radishes.

Messrs. Editors—Inform L. H. that he fails in procuring good turnips and radishes on account of impurity of seed, soil and cultivation.

Seeds should be of the first class, that they may not become woody, or run to seed and become pithy. I prefer the English or French seeds of the Radish (*Raphanus sativus*) family, to those of this country, as they are matured with care. For early sowing, the round shaped or olive shaped is preferable to the spindle-rooted. Soil should be finely prepared, either with the finest of horse litter or hen manure, and the soil should be of a light sandy loam, and well rolled after sowing, and the seed sown evenly in drills of 16 inches apart, that they may be cleaned with the hoe or hand cultivator—thinning them out if the plants are too numerous, and that at an early stage of growth—watering every evening if required, to procure them fine, firm, crisp and crystalline.

Frequent sowings of the Yellow Turnip and Summer White, which are fine kinds, withstand the heat from June to the middle of September. Also the White Spanish, or Black Spanish, as most liked, should be sown during the summer months. The seedlings are generally up in a week, and from that time to four weeks they may be drawn.

Turnips require a soil well manured and pulverized —seed sown in drills two feet apart to three feet for some varieties. Seed should be fresh and known from whom obtained, if not raised by self—thinning them out as they advance in growth,. until you get them, each at a proper distance, according to their varieties.

Test your seed before sowing, to see how many germinate out of one dozen, and how soon, that the germination of the seed may be hastened by all natural means. J. White. *Ogdensburg, N. Y.*

Planting Grape Cuttings.

Messrs. Tucker & Son—I have this season tried what was with me a new method of planting grape cuttings,—that of planting them horizontally, near the surface of the ground, perhaps half an inch. I am well pleased with the result. They were planted in a shady place, where the sun shone but a short time during the day. Since I planted the cuttings, I found a notice of that method of planting, so I suppose I must give up the claim to the origin of the plan, and give the credit to the Co. Gentleman. H. C. W. *Sheldon, Vt.*

New-Hampshire State Fair.

The Eighth Annual Fair of the N. H. Ag. Society, was held on the 7th, 8th and 9th of October, at the city of Concord. Several of the departments were not so well represented as has been the case in some previous years. This was particularly the case in respect to fruits and flowers, though there were some very fine samples of apples, pears, peaches, &c. Of garden vegetables there was a good display, as also of pumpkins, squashes and melons of huge dimensions. Products of the dairy in fair quantity and of first-rate quality. Very fine specimens of corn and potatoes—one man exhibiting 21 varieties of corn and 20 of potatoes, of his own raising. Winter wheat by several competitors. A number of samples of very fine maple and Chinese cane syrup, and maple sugar that in appearance equalled the best "coffee crushed."

Of cattle there were exhibited pure bloods of the Durham, Devon, Ayrshire, Hereford, Alderney, Hungarian, and the so-called natives. Fifteen years ago none others than the last named would have been exhibited at our fairs. Horses of the 2.40 breed were there in strong force, as also various other descriptions of the same genus. A cream-colored mare 12 years of age, and her twin colts by her *sides*, attracted the notice of thousands of persons; the colts were several months old, nearly the color of the dam. The colts did not so closely resemble each other as did a splendid pair of three-year-old twin steers, owned by Mr. Jenness of Pittsfield. Sheep in great numbers were in the pens—South Downs and Oxfordshires, French and Spanish Merinos, Saxonies, Big-tails from Cape of Good Hope, and natives, fat and lean, of various crosses and grades. Swine of various breeds and ages; in numbers, a little short of one hundred were on hand.

But I must not go into particulars respecting many of the other departments of the exhibition, for there have been other fairs besides ours, that you must notice in your paper. But a few words in respect to some new farm implements. There were several hay cutters—one or two new patterns, cheap and efficient, and not complicated or liable to get out of repair. A model of G. D. Harris' Stump Machine, and Portable Press for pressing hay, cotton, hops, &c., which attracted much notice. "Calvert's Improved Common-sense Bee-hive" was thronged inside with honey and bees, and on the outer side with "lads and lasses."

Manny's mowing machine, and R. L. Allen's do , were on hand, and to gratify hundreds of farmers that had never seen one in operation, the agents very cheerfully submitted them to a trial. A level field, containing a plat of about three-fourths of an acre, having upon it a fair growth of second crop of clover and couch or phin grass, was selected for operating the machines; some portions of the grass were very rank, and badly lodged and matted. The work performed by Allen's was much less perfect than that performed by Manny's. How the machines would have competed in other kinds of grasses, we had no means of judging.

But the great attraction for the farmers was Rufus Nutting's "Power or hand grain, grass and garden seed cleaner and separator." It did up the cleaning and separating of different seeds "like a thing of life." Mr. N. "tells his own story" in the Co. Gent. of 1st Oct. His statements are not overdrawn. Most farmers have tolerable winnowing mills, and would be unwilling to throw them aside and pay some $20 for a new one; but we think it would be a matter of profit for several farmers in the same neighborhood, to club together and purchase one for the express purpose of preparing grain and seeds for sowing. The shrivelled and small grains of wheat are readily separated from the large, plump kernels, and these are entirely cleaned from all foul seeds, &c. None have yet been manufactured for sale, but Mr. N. thought they could be afforded at from $15 to $25.

The weather during the fair was unexceptionable, the attendance large, and we saw no rowdyism, quarreling, or drunkenness. A fine balloon ascension concluded the show. L. B. *Warner, N. H.*

Night-soil—its Value and Preparation for Use.

Of all animal excrements, the human fæces, or night-soil, is the most valuable as a fertilizer, when we take in view its quick and permanent action on the soil, and the convenience with which it can be procured and prepared for use by all cultivators. This country being comparatively new, there has been less necessity for that economical system of saving everything of a fertilizing nature, which has been practiced for years where the population is dense and the supply of tillable land is limited; hence we can perceive the reason of the almost wanton neglect in these matters, which has characterized us as a shiftless, unsettled nation of farmers, wearing out our farms and leaving them for the vast plains of the fertile west. This system of culture has been the great stumbling block on which all improvement in agriculture has been sacrificed, and so long as it continues our farmers will never rise to that proud position which is their natural birthright, and which in this of all countries would be granted them.

Our farmers have been within the last few years compelled to pay very exorbitant prices for foreign manures, which have been imported and speculated on more to the advantage of the importers and salesmen, than to that of the purchasers, who are proverbially men of less prudence in financial matters than those of whom they purchase, who are often perfectly unscrupulous in regard to the article sold, provided they can get it off their hands and make a handsome profit. There is perhaps no business in which more has been realized, than in this system of humbugery which has of late become so well known by the open, barefaced manner in which it has been practiced, and the miserable imitations which have in some cases been palmed off on the unsuspecting.

Night-soil contains all the concentrated strength and quick fertilizing qualities claimed for these foreign substances, and has the advantage of more durability, and is not impoverishing to the soil after its effects have been dissipated; the chief and only objection which we have ever heard urged against its use, is its unpleasant odor, which can easily be prevented, and without any decrease to its merits as a fertilizer, by the use of gypsum (sulphate of lime) or charcoal, either of which if thrown into the vaults regularly every few days, will prevent the escape of the volatile gases, by absorption, and consequently leave no disagreeable smell. Many persons use lime as an absorbent, thinking it valuable as it dissipates the odor; but this is a ruinous plan, for its action decomposes and expels all the ammoniacal salts, and leaves only the phosphates. In China and Flanders probably more attention is paid to the economical preservation of this manure than in any other countries, and the Flemish value the excrements of a single adult to be worth twenty five dollars The Chinese make night-soil quite an article of traffic, which is protected by the government, who provide laws prohibiting that any such excrements should be thrown away; they are saved with the most scrupulous nicety, and regular places of deposit are made at corners of the streets and other convenient places, where persons are always in attendance to apply absorbents and mix the new deposits with water to prevent the escape of ammonia—consequently the nuisance of smell is avoided. It is also made into cakes by these ingenious people, which are mixed with marl and then burnt to hardness in the sun; they are afterwards pounded into a powder before application to the land, but we should judge by this method the escape of many of the volatile gases would be inevitable, causing a decrease in the quality of the fertilizer.

In Flemish husbandry, the liquid manure system is used with greater advantage than in any other country, and in fact we are told that it has almost superseded all other systems of manuring. We are not prepared to state what amount of liquid manure should be applied to an acre, but this will of course depend upon the strength of the manure and the state of the land. We should judge it better to apply it in small portions at first, as too great an application would prove disastrous, causing the plants to grow too much to straw, and in some cases the crop might be entirely destroyed.

In England, within a few years, the saving and preparation of night soil for use has become a very important branch of the economy of agriculture, and we believe the plan has been generally adopted to use it in liquid form. It is said to be more efficient, applied in this way to the land by means of a liquid manure cart, than when prepared in a powder by absorbents, or dried in the sun after the Chinese fashion. We do not doubt that where sufficient quantities can be procured, the liquid system will prove more advantageous than any other, but it can hardly be adopted as a general practice on small farms in this country, without the liquid portions of the other animal excrements are drained off into a tank and used in conjunction with the night-soil, which might tend to the better preservation of all the valuable liquid excrements on the farm.

The method of preparing night-soil in France, is more destructive to its virtues than that in any of the countries which we have mentioned; the excrements are placed in open casks at Montfaucon, where they remain until they have evaporated many of their valuable gases, and the liquid portions being drained off, it causes a certain dryness to ensue, after which the remainder is taken out in the form of a thick paste and spread on an open floor prepared for that purpose. It is then exposed to the air, and occasionally turned and separated to facilitate its more ready change into a dry brown powder, which is called poudrette; by this preparation the night-soil loses all its liquid elements, which contain by far the most intrinsic merits, as they cause the evaporation of more than half the nitrogen and ammonia. After the expulsion of the gases, the residue consists principally of phosphate of lime and phosphate and lactate of ammonia, with small quantities of urate of magnesia and fatty matter. Several attempts have been made in this country to manufacture night-soil into a merchantable article, without diminishing its merits as a manure; these have been partially, if not entirely successful, and the Lodi Co., of New-York, are now making it into poudrette, which they claim to be of superior quality; we have seen specimens, and have used it with good results on Indian corn, but are unable to state its value when used indiscriminately on all kinds of crops; it is a convenient manure, and contains no disagreeable smell.

We should advise all farmers, gardeners, and others, interested in obtaining this valuable manure without loss and in its most desirable form, to have good water-tight and capacious vaults made under their privies, with convenient outside openings, which can be easily removed; when this is once done, the after task is easily consummated, and the application of the absorbents already referred to, will prevent any unpleasant smell; the mass can then be removed with little difficulty, as it will be in a liquid form. We have usually taken from some convenient part of the farm or woods, a few cart-loads of loam, mixed up with leaves, saw-dust, or any similar rubbish, and placed them in a round conical heap, as compact as possible; we then flatten or scoop out the top, like the crater of a volcano, and pour in the liquid night-soil. Loam from the sides must then be filled in until the liquid is consolidated. This process can be repeated until the whole heap is well impregnated with night-soil, when it should be smoothed up to its conical form, leaving the sides in good order to shed rain, or it would be still better to have the heap covered with a cheap roof. We do not mean to assert that this is the most saving and efficient method which can be used, but we advise it as a cheap and convenient one for trial by those who have so long neglected the preparation and use of this valuable fertilizer.

We deem it unnecessary to add any further proofs of the value of this manure when used with discrimination; that point we started with as a settled fact, and the only reason to be urged now against its more universal use in this country, is the natural aversion and disgust to it which seems to be so firmly settled in the minds of all. There is a feeling of disgrace attached to its manufacture and use, which may be partly owing to the supposition that it attaints whatever is manured with it—giving rather unpleasant information in regard to the early history of the vegetable; this we do not doubt is entirely an error; it is at least so far as our own limited experience goes, and we have used it in most all ways. One remarkable circumstance is, that those countries in which it has been so long esteemed, have always been justly celebrated for the extreme cleanliness of their inhabitants. Flanders and Alsace are a proof of this fact. G. T. H.

Sugar Cane Mills.

MESSRS. EDITORS—Seeing an article in your valuable paper from the pen of a correspondent, making inquiries for some mill to extract the juice of the "Chinese Sugar Cane," I thought I would describe something which I saw at the extensive manufactory of Messrs. Nourse, Mason & Co., at Worcester, Mass., for that purpose.

In passing through their large store-houses, I saw a machine stenciled "Cane Crusher," and upon making inquiries, I learned the following facts concerning it:

The machine which now engaged my attention was for hand power, the wood-work of which was like a hay or stalk cutter, and the crushing part consisted of three simple rollers. There is no *press*, and no pressing is needed; it simply crushes the cane, and the juice passes off into a tub, or whatever is placed under the machine to receive it. It takes up no more room than a medium sized hay cutter, say two feet by four. Nourse, Mason & Co., sell this size for $20. I was shown another "Crusher" for power, built in a similar manner, but of great strength and power. This machine, I should judge, occupies a space of about six feet long by three wide, and is built in a very substantial manner.

I subsequently saw the small hand machine in operation, and it worked to my entire satisfaction, extracting the juice in a thorough, neat and skillful manner. The large machine for power costs $60. Cultivators of this plant would do well to inquire of this mill before crushing their cane. J. H. REED. *Worcester, Mass.*

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HOWARD PREMIUM FOR THE BEST WHEAT CROP.—Mr. H. B. HOWARD, manufacturer of Manny's Combined Reaper and Mower at Louisville, has offered, through the Kentucky State Ag. Society, one of these machines, with Wood's improvement, as a premium for the best 25 acres of wheat grown by any farmer in that State, and a like premium for the same purpose to the farmers of Indiana, to be awarded by their State Ag. Society.

Notes for the Month.

PATENT OFFICE REPORT FOR 1856.—We are indebted to Hon. ASBURY DICKENS, Secretary U. S. Senate, for a complete set of the Patent Office Report for 1856, consisting of four volumes—one vol. on Agriculture and three on Mechanics—and to Hon. J. HOLT, Commissioner of the Patent Office, for the vol. on Agriculture. These volumes are got up in better style than any heretofore issued.

The volume on Agriculture is illustrated by colored prints of a pair of Arden Horses, a South Down Sheep, Peabody's Seedling Strawberry, and a map showing the Isothermal Lines in North America. Beside this, there are 42 pages of engravings on wood, very handsomely executed and printed, illustrating a paper on the "Quadrupeds of Illinois, injurious and beneficial to the farmer, by ROBERT KENNICOTT," and several other cuts. The volume contains papers from D. J. Browne, H. F. French, Simon Brown, John J. Thomas, Dr. Jackson, W. C. Dennis, Joseph Henry, and others, and is, we judge from a hasty glance at its pages, an improvement on the previous Reports.

Two of the three vols. on Mechanics are occupied with lists of expired patents during the year 1856, and lists of patents issued during the same time, with descriptions of the claims of the patentees. The third volume of 554 pages, is occupied solely with illustrations of these patents.

PRINCE ALBERT POTATOES.—I this day forward you a sample of Prince Albert Potatoes, grown on the farm of J. A. Horton, Esq , by me, on the one-eye system—(see Co. Gent. vol. 9, pp. 394 and 411) Our crop is, I think, going to be very fine. We have no disease in our Prince Alberts, and I have dug about 60 bushels of them.

I send you a stem of Jenny Lind Potatoe, with a white one attached not at all resembling the Jenny Lind; you will see it has not any of the characters of that potato. The men said that they had seen several in the same way. I thought it had been another sort of potato, but noticing it attached to the stem with a Jenny Lind, I saved it. Whether it will cook as a Jenny Lind or not, I am unable to say. I shall try it if I should find another. GERALD HOWATT. *Newton, N. J., Sept.* 21, 1857.

The Prince Alberts were certainly as fine a lot of potatoes as could be desired—measuring from four to eight inches in longest diameter, and from 2 to 2½ in thickness,—and when cooked, as white and mealy as possible. If their size and quality are in any measure owing to the "one-eye system" of growing, they certainly speak well in its favor. We were glad to receive them, moreover, because we had never before chanced to see this variety, which appears to us must be a profitable one for cultivation. Mr. HOWATT will please accept our thanks.

☞ Mr. T. C. WHITESIDE of Washington Co., presents us samples of a very pleasant, mildly acid, and juicy apple, which he calls the "Argyle." It is of fair size, and said to be a good bearer.

DELAWARE GRAPE.—I send you to-day by Express, a sample of the Delaware Grape from the vine of which I wrote you a description. (See Co. Gent. p. 174.) The fruit matured more rapidly than I expected, when I wrote you, some bunches being ripe a week ago. There are yet a few growing in the shade, not fully ripe. The bunches I send you, are a fair average of the whole: not the largest, but apparently, well ripened. I think, in usual seasons, they will ripen in this latitude, (40°) from the 1st to the 5th of September. GEO. W. CAMPBELL. *Delaware, O., Sept.* 18, 1857. [With the above we received two beautiful clusters, the finest samples of this variety we have yet seen. They arrived in perfect condition for eating. As our readers are aware, neither the bunch nor the berry are large size, but they are compact, the seed small, the skin thin, and without any acidity or astringency of flavor.]

TOWN FAIR, WILMINGTON, VT.—The Vermont Phenix furnishes us an account of this Fair, which was held on the 22d Sept. The Society owns its show grounds, which are properly fenced, and are provided with a Floral Hall for the exhibition of household goods, &c., and the necessary pens for stock, which on this occasion were well filled, there being on the ground 140 yoke of oxen and steers. "The exhibition," says the account, "in every department was creditable, but in neat stock it excelled that of any county or State Fair we have ever attended." For a number of years past, it is said that the cattle of this town have maintained a decided superiorty over those of every other town in the state, and our correspondent, Mr. C. T. ALVORD, gives a very interesting history of the means by which this superiority has been attained. The plan pursued, and which has proved so successful, is the one we have often recommended for twenty years past, to wit, the introduction of well-bred bulls. A Long Horn bull was first introduced about twenty-five years ago—since then a number of Short-Horns, and one Hereford bull, have been used, and to these the great improvement which has taken place is attributed.

☞ A testimonial was to be presented to Mr. Mechi on the 22d ult., "from British agriculturists, expressive of their sense of his zealous and spirited exertions for the improvement of Agriculture, and of his liberal hospitality at the Tiptree annual gatherings. There is an opportunity for wealthy Americans to deserve well of their country, by emulating the example of the present sheriff of London, in substance, if not in detail. In default of "Experimental farms" and "Model farms," under State or associated control, what private individual will be first to make use of every improved process, implement, breed of animals, mode of building and general management of his farm, so as to render the whole practically the most economical, systematic, and profitable—and then invite public examination of the operation, and an annual scrutiny of its results?

REBECCA GRAPE.—We are indebted to Mr. WM. BROCKSBANK of Hudson, for samples of this very superior grape. We think it richly deserves all the commendation it has received.

STRAWBERRY POTATOES.—Mr. G. W. DURANT of Rensselaerville, will accept our thanks for a basket of his Strawberry Potatoes, which we found to be of good quality, either for baking or boiling.

ILLUSTRATED ANNUAL REGISTER.—A correspondent in Illinois says—"Although I was somewhat prepared for much that your Register contains, I did not expect to find it so replete and finished a little gem. In every particular, I take it to be a model, and as much superior to all of its kind, as the Country Gentleman is to all our weekly agricultural papers."

THE ILLINOIS STATE FAIR.—We have room but for a brief note in relation to this show which was held last week at Peoria. There were shown upwards of a hundred head of Short Horns, a fine display of North Devons, and perhaps the best exhibition of Horses ever made in the State. The Durhams included several animals of the late importation, and must have been a beautiful collection. Among exhibitors of Devons we notice the name of Col. H. Capron, as one of the largest, also that of C. D. Bent, formerly of this State and now of Iowa. We have received no accounts as yet of the other departments of the show. The weather on Monday (Sept. 21) was unfavorable, a cold, drizzling rain much impeding the arrangement of the grounds and the enjoyment of spectators. At the time of going to press, we have no advices later than Monday eve.

The Crops of 1856.—The report issued from the U. S. Patent office, states the value of the leading crops of the country for 1856 as follows:

Indian Corn	$360,000,000
Wheat	247,500,000
Hay and Fodder	160,000,000
Pasturage	143,000,000
Cotton	136,000,000
Oats	68,000,000
Garden Products	50,000,000
Potatoes	41,250,000
Sugar	35,000,000
Orchard Products	25,500,000
Total	$1,266,250,000

Corn Husker.—The Lockport Daily Advertiser states that Mr. E. S. Holmes of that place, has perfected a machine for husking corn. It is operated upon by a crank, or may be belted to a convenient power. The editor says—"We saw it in operation a few days ago, and it worked to a charm, taking the husk clean from the corn, and cutting off the ear from the stalk. The farmers will be glad, we know, to obtain a cheap means of lessening a labor which must necessarily take months to do by hand, and be done in a cold barn. The machine does its work effectually, and as fast as a man can feed in the ears. It will be exhibited at the State Fair in Buffalo. Hr. H. obtained a patent for the husker in February last, and this is the first perfect one ever made. We congratulate him and the farmers generally upon his inventive genius."

Portable Steam Engine Manufactory.—It will be seen by reference to the advertisement of Messrs. A. N. Wood & Co., on the last page of this paper, that they have removed their steam engine manufactory from Eaton to Utica, where they will possess much greater facilities for manufacturing and shipping their articles.

Canada Cattle.—Notwithstanding the drawbacks of climate, &c., we manage to breed some pretty good cattle, principally Durham grades, with some Devons. A Stukeley farmer sold a pair of three-fourths Durham oxen, six years old, and *white*, for $300. They were driven to Montreal market.

R. A. Ellis, Esq., of this place had a Durham grade cow that produced 12¾ lbs. butter the second week after, she calved. The trial commenced on the 15th April, and the cow was fed on four quarts ground oats in addition to hay. She is a superior breeder as well as milker—her stock is large and well made.

I have recently purchased the Durham bull "Emperor," bred by R. N. Watts, Esq, the President of the Lower Canada Board of Agriculture. His pedigree is registered in the third vol of the American Herd Book. We have now in this county, 2 Durham, 2 Devon, 2 Ayrshire, and 1 Hereford bulls, all thorough-bred—besides a number of high grades, principally Durhams. G. C. R.

Tioga Co. Fair.—I have returned in time for our Tioga County Fair, which is just ended. The weather was very unfavorable, but our new show ground was filled beyond all expectation. The cattle were *all* from the grass-field; probably there was not an animal on the ground that had been fed a bushel of meal; nor did I discover a *comb or brush* in either of the cattle stalls. They were shown as all breeding cattle should be shown, in good breeding order. Every man was anxious to have his stock brought before the committee, and the true spirit of competition was manifest in almost every exhibitor. All seemed to express a desire to obtain the first prize, but those disappointed are anxious for another trial, and are not daunted by this defeat. I think every man in the cattle class showed on an honest principle; not an animal was forced out of its natural and *breeding condition.*

There were several pairs of carriage and other horses entered, which did much credit to the county. The track was a good one to show them, and each class performed the duty required of them to the satisfaction of the judges and managers of the fair. Mr. Harstainer exhibited ten fat cattle and twenty fat sheep, that were of excellent quality.

The sheep and pigs were quite a credit to the show. The vegetables were far beyond those shown at the National Fair at Louisville, or the State Fair of Ohio, at Cincinnati, and I think were equal to any vegetable show I have seen for a long time. The show of flowers and fruit was small, but displayed much taste in their arrangement.

The plowing match was a spirited one; although the rain came down heavily, the plowmen stuck to their work like men, each with an eager desire to win. Four teams started, each of them receiving a prize.

There was a patent hog-pen exhibited by Mr. Brower. Beautiful carriages, and substantial farm-wagons, by Clarke & Perry of Owego, that did much credit to their builders.

All passed off in perfect harmony and good feeling, and hoping for better weather for the next year's show. Wm. H. Sotham. *Owego, Oct.* 2.

The Orwell (Vt) Farmer's Club held their third Annual Fair, Sept 30. Entries 310. Twenty one sets of judges to as many divisions of the entries, who awarded 180 premiums for stock, mechanical work, farm produce, plain and ornamental domestic manufactures, drawings and paintings, that would have done honor to any county fair, and far in advance of some that are witnessed every year. Our annual town fairs are our best holiday days in the year. Spectator.

Uselessness of Salt for Grubs, Worms, &c.—We have frequently cautioned our readers against being led astray by the fanciful recommendations of those who advise the application of three, four, and even six bushels of salt to an acre, for the destruction of grubs, worms, weeds, &c. A correspondent of the N. E. Farmer, in a recent communication, states that he had a neighbor who had great faith in what had been said by some, of the virtues of salt, and that he had put a bushel and a half it into a not very large onion bed last fall, hoping to kill the maggot. This summer, however, they have almost entirely swept his bed. This fact may serve to corroborate the statements which we have made in former years, to the effect that some grubs will live, not merely in a soil saturated with a solution of salt, but even in salt itself; and that, at all events, they cannot be destroyed by any quantity of salt applied to the soil which would not at the same time destroy all vegetation.

Productive Grape Vine.—Among my grape-vines I have one which I have cultivated more for a shade than for fruit, yet it is a good bearer. Last year I made from it twenty gallons of wine, and sold and gave away more than five bushels of grapes. It covers a trellis ten feet high, eighteen feet wide, and over sixty in length. The body, near the ground, is 4½ inches in diameter. O H. W.

Herkimer Co. Fair.—The 15th Annual Fair of the Herkimer Co. Ag. Society was held at Ilion on the first and second inst. The clouds commenced dripping early in the morning, and did not cease until 5 P. M., of the last day. A more disagreeable time we never before realised—mud without measure or control; wet clothes, wet spirits, and wet everything. Fortunately the society has a Hall which protected all the fineries. The stock department was better than usual, and of finer quality. Horses were of much better stamp than usual. The Fruit Department was the best ever produced in the county—good in numbers, and every way creditable to our horticulturists. Domestic goods moderate in numbers and good quality.

The receipts amounted to only $212. Last season over $1,000 were received, and this about our usual amount. This falling off is wholly attributable to the most unpropitious weather that can be imagined. J. D. INGERSOLL, Sec'y. *Ilion*, *Oct.* 5.

MR. TAYLOR'S SOUTH DOWNS.—We publish this week a portrait of a South Down buck, selected by JONAS WEBB for Col. L. G. MORRIS, previous to the disposal of his flock last year, when the Colonel transferred his interest in him to Mr. J. C. TAYLOR of Holmdel, N. J., who had laid the foundation for a flock by purchases from Col. Morris, and to which he added eight head at Col. M.'s public sale. These were all from the Webb stock, and most of them the get of Col. M.'s celebrated "Young York." "Frank," whose portrait is given, was selected by Mr. Webb, and imported by Mr. Taylor, for the purpose of being used on the sheep Mr. W. had previously sent to Col. M., and is, we are assured, a very fine animal Mr. Taylor is said to be a first-rate judge of sheep, and is breeding with great skill, and this flock may safely be resorted to for choice breeding animals.

NEWMAN'S THORNLESS BLACKBERRY.—We invite attention to the advertisement of A. A. BENSEL, Esq., Milton, Ulster Co., N. Y. Mr. B. is sole agent for the sale of Newman's Thornless Blackberry, and those addressing him will be sure to get the genuine article.

MILLET SEED.—I notice in Co. GENT of Sept. 17th, page 192, an analysis of Millet seed, and your opinion that they will make good feed. I have just tried them, mixed with wheat bran, and find they do not digest, but pass through whole. I do not think them, for this reason, good food. B. J. T. *Pelham*, *Grundy Co.*, *Tenn.* [Did our correspondent overlook the concluding sentence in the article referred to? It particularly states "that those intending to use millet for feeding purposes should have it *reduced into meal*, *the finer ground the better*, and when intended for pigs, the meal should be previously boiled or steeped for a time in hot water." We should be pleased to have B. J. T. experiment further with *meal* made from millet seed, which is the only form in which we supposed it could be used to advantage.]

REBECCA AND DELAWARE GRAPES.—What is the opinion of the *Country Gentleman* as to the relative merits of these two grapes? We have faith in the judgment and integrity of the Messrs. Tucker, and as they have doubtless frequently compared them, we should like to hear their unbiassed opinion. Those who cultivate, *and have for sale*, a new variety of fruit, of good quality, are naturally the worst judges of its merits. Self-interest generally has an irresistible influence upon the mind; and while in some cases a nurseryman cannot be mistaken in bestowing unmeasured praise upon certain fruits of his own production and little known to the community, this is only the exception to the prevailing prejudice. We therefore need an unprejudiced opinion upon the qualities of these two grapes. We confess our feeling is with the *Rebecca;* but we shall not hesitate to change it upon conviction that we are mistaken.—*Germantown Telegraph.*

Different cultivators have their preferences—both grapes are excellent, delicate, hardy American varieties. We prefer the *flavor* of the Rebecca, but its habit of growth is not equal to the Delaware, which is also earlier. We do not, however, think the Delaware equal in flavor to the Diana. These three are all great acquisitions.

THE CONN. STATE FAIR—at Bridgeport, last week, does not appear to have been so fortunate in weather —after all the main regulator of attendance—as in the general character of the exhibition. In default of anticipated correspondence, we present a few notes from other sources. * * * The show of *Devons* was never better. Lindley Bros., Meriden, L. S. Hurlbut, Winchester, B. H. Andrews, Waterbury, John T. Andrew, West Cornwall, J. N. Blakeslee and several others of Watertown, Wells Bros., New Britain, were among the more prominent of numerous exhibitors in this class. *Alderneys* were shown by John Giles, Woodstock, G. Thompson, Bridgeport, T. Treadwell, Farmington, and J. N. Blakeslee, Watertown. The *Durhams* on the ground were not of extra quality—this breed, as our readers are aware, is no favorite on the stony hills of Connecticut, where Devons are so much better calculated to thrive. Thos. Cowles and several others, however, showed good samples. Thomas Treadwell, Farmington, was an exhibitor of *Ayrshires.* Some very good *Fat Cattle*, and a splendid display of *Working Oxen*, were contributed from different sections of the State. *Horses*, *Sheep* and *Swine* appear to have been present in good numbers. The show of *Implements* was not very large. The concluding address by DONALD G. MITCHEL is highly spoken of.

THE COUNTRY GENTLEMAN—"*One of the ablest and best conducted American newspapers.*"—Fifeshire Journal, *Cupar*, *Scotland*, *Oct.* 1.

SUGGESTION TO POULTRY MEN.—I see by the papers that the American Institute, in New-York, are going to hold a "fat cattle" exhibition at the Crystal Palace, in December next. Would it not be a good idea to propose to the N. Y. State Poultry society to hold their fair at the same time and place, in connection with the "Fat Cattle" show? R. W. P.

WILSON'S ALBANY STRAWBERRY.—NICHOLAS LONGWORTH, the great strawberry grower of Cincinnati, in a letter to the Southern Cultivator, says—"I had Wilson's Albany Seedling in bearing the past spring. From its bearing this year it appears to have the rare character of being perfect in both male and female organs, and to bear a full crop of fruit of good size."

THE "VALUE OF MANURES."—Recently chancing to meet with a copy of an English farm Inventory, we noticed in it a striking illustration of the money-value of fertilizing the land, as it is rated and paid for by English farmers. The paper in question was the actual valuation of umpires, made for an out-going tenant, and the sums therein specified were paid to him by his successor, so that it was a matter of real purchase and sale, and not one of mere "estimates" and opinions. Under the head of *The Wheat Crop*, were the following entries:

Paid for half the cultivation and manure expended the previous year on land when in roots, that quantity being assumed as still remaining in the land, 100 acres at £4,	£400
Paid for value of manure dropped by sheep, on 40 acres of land under clover the previous year,	40
	£440

Here is the sum of nearly *twenty-two hundred dollars*, paid for the condition of a hundred and forty acres of land, as fertilized by previous operations, above what they would otherwise have been worth. If the simple facts included in the few lines quoted, do not convey their own moral to the reader, he would scarcely be benefitted by all that we could add.

THE PRAIRIE FARMER.—This paper, started about seventeen years since at Chicago, by J. S. WRIGHT, Esq., has passed into other hands, and with the change of proprietors a change has been made in the editorship. Mr. C. D. BRAGDON, who has been the principal editor for some years past, has retired, and is succeeded by Mr. JAS. C. MEDILL. Dr. KENNICOTT continues as corresponding editor. This paper has done good service in the cause of agricultural improvement, and the new editor and publishers have our best wishes for their success.

Inquiries and Answers.

Cucumbers for Cattle—Wind-Mills—Winter Melon—Onions—Butter-Worker.—By answering the following inquiries in the next Cultivator, you will much oblige one of your subscribers at least.

1st. Are cucumbers worth cultivating for milch cows? They bear remarkably well in this vicinity. I picked several cart-loads this season from a patch two rods square. [We think such a large crop is very unusual and cannot be relied on; and that pumpkins would not only be more productive, but sweeter and more nourishing.]

2d. What will be the cost of a wind-mill of sufficient size to do the work of a small farm, such as churning, sawing wood, thrashing, &c., and which patent is the best? Is not wind the cheapest power we can use here on the prairies, where wood is scarce, and wind is always plenty? [Wind is a very cheap and a universal power, and is very often working or expending itself with a force equal to that of ten thousand horses over every farm. But we are not able, from experience or sufficient observation to say which is the best wind-mill of the many kinds lately invented, nor indeed if any one is well adapted by its simplicity, durability, adaptation, & cheapness, to the ordinary purposes of farming.]

3d. As we do not succeed in raising apples on the prairies, we are desirous of obtaining something as a substitute. In the Patent Office Report for 1854, there is a description of a winter melon, viz., "Winter melon (Melon d'hiver,) from the south of France, with a smooth rind, greenish white, brittle flesh, juicy, and of a delicate flavor. It keeps well as late as the month of February." Where can the seed of this variety be obtained? [We know nothing of the Winter melon—should prefer the pumpkin in some of its best varieties.]

4th. The Onion crop in this vicinity has failed to bottom well this year, running mostly to tops. The superstitious "old grannies" say it is all owing to planting in the full of the moon! What is your opinion? [Our opinion is, first, that the moon at no time has more influence on a bed of onions than a fat cat walking on the adjacent garden fence; and if it had, it would certainly make no difference whether the sun happens to be shining on one side of the moon or the other. Some have claimed that the light of the moon makes the crop grow; but the light of the moon is less than a two hundred-thousandth part of that of the sun—consequently the light of the sun for a single day only, is greater than that of the moon for a thousand years, and at this rate it would require more moonshine than all we have had since the days of Adam, multiplied twenty times, to perfect a single crop of onions—which would perhaps exhaust the patience of most gardeners in waiting for such slow results. The failure our correspondent speaks of must have been from some other causes.]

5th. Will Geo. B. Price inform us through your advertising columns, the price of his new "Butter-Worker," and oblige A Morgan Farmer. *Morgan, Iowa.*

How to Keep Roots.—I would be obliged for advice as to the best method of keeping beets and turnips through the winter, for stock. B. S. C.

American Farmers Encyclopedia.

THE MOST COMPREHENSIVE WORK on American Agriculture, and a work of real value.

Twelve hundred pages, seventeen Lithographic Plates, besides other illustrations.

Price $4. Sent by mail, post-paid, on receipt of price, Catalogue of Agricultural Books sent gratis to all applicants.

A. O. MOORE,
Agricultural Book Publisher,
140 Fulton-st., New-York.
Oct. 22—w2tm1t

10,000 Peach Trees,

TWO YEARS from bud, at $8 per hundred—$60 per thousand. Also a general assortment of FRUIT and ORNAMENTAL TREES, at very low prices.

JAMES. W. GRAY,
Ball's Pond, Connecticut.
Oct. 15—w3tm1t.

Dadd's Modern Horse Doctor.

AN AMERICAN BOOK FOR AMERICAN FARMERS ! !

IT TREATS of the Diseases peculiar to the American climate.

It recommends simple modern remedies instead of dangerous poisons.

It teaches how to keep your horse in good health, and how to cure him if he is lame or sick.

It only costs One Dollar, and will be sent by mail prepaid.

A valuable catalogue of Agricultural Books will be sent gratis to all who apply.

A. O. MOORE,
Agricultural Book Publisher,
140 Fulton-st., New-York.
Oct. 22—w2tm1t

Regulators for Horse Powers.

THE subscriber has lately invented a regulator, which controls the motion of a railway horse-power as a common governor does a steam engine, preventing any undue speed when the work is stopped or the belt flies off, and renders a horse power a convenient power for all kinds of work of the farmer and mechanic. It is small, simple, and not liable to get out of order, and is bolted to the machine so as to move with it without extra attention. Price of cast-iron $10—brass $15. Orders and inquiries addressed to

C. H. TOPPING,
Bridgehampton, L. I.
Oct. 29—w2&m1t*

Webb South Down Sheep for Sale.

SEVERAL BUCKS and a few EWES—price varying from $50 to $75 each, delivered on shipboard or rail-car, properly boxed, &c., free of charge.

My flock, now consisting of about 60 head, (which will enable me next year to fill many orders,) have all been derived from the above celebrated breeder, from animals imported directly from him, and I have no other blood among them. My sheep have been obtained from Col. L. G. Morris of Mt. Fordham, at sundry times at private sale; and at his sale in June, 1856, I secured a great addition. My acquaintance with Mr. Morris' flock, and the shepherd in charge, enabled me to select, previous to the sale, sheep of known and tried breeding qualities, and I succeeded in securing at the sale nearly all I marked, with the exception of one or two ewes, and the celebrated buck "Young York." The disappointment in not getting "Young York," (which at the time was very great, although I had secured a large number of his get,) has been fully made up by the importation of the sheep "Frank," which is illustrated in this paper, and at the same time I got out five very fine ewes. For further information address

J. C TAYLOR,
Holmdel, Monmouth Co., N. J.

N B. Col. L. G. Morris of Mt. Fordham, N. Y., has very kindly given me the privilege of referring parties to him, as he is well acquainted with my flock at the present time. Oct 15—wtf

AGENTS WANTED.

EXCELLENT BUSINESS OPENING.

WANTED—A few energetic, industrious Men, to sell Agricultural Books among the Farmers. Very favorable terms will be given. With proper attention, more than $100 per month, clear profit, above all expenses, can be realized. A rare chance to make money without risk. For particulars, apply immediately to A. O. MOORE, Agricultural Book Publisher, No. 140 Fulton-street, New-York. Oct. 22—w2tm1t

STOCK FARMS.

THE subscriber having changed his residence, offers for sale his two Farms in Kendall, Kendall County, Illinois.

The Tenant Farm, of about 160 acres, all fenced, has on it a good sized house, good barn, granary, and hog house; a lot of fruit and ornamental trees.

Also his late residence containing about 190 acres—all but 80 acres fenced in. This has a large and convenient house, which cost $2,500, a good barn and henery enclosed; a good cattle yard; two good wells and a cistern; a valuable orchard, and about 60 varieties of ornamental trees and shrubs; also 14 acres of timber land. The two farms lie adjoining each other, and would make good Stock Farms, and will be sold separately or together, to suit purchasers. Having poor health, and wishing to change my business, I will sell at reasonable prices. For further particulars, address John K Le Baron, Esq,. Specie Grove P. O., Kendall Co., Ill., or the subscriber,

EDWARD S. L. RICHARDSON,
Box 455, Chicago, Ill.
Oct. 15—w3tm1t.

Lawton Blackberry Plants.

Scale of Prices by the Dozen.

A PACKAGE of	one dozen,	$3
do.	two dozen,	5
do.	five dozen,	10
do.	eight dozen,	15
do.	twelve dozen,	20

The name and direction of the purchasers should be distinctly written, and the money accompany the order.

Address to WILLIAM LAWTON,
Oct. 1—w4tm2t. 54 Wall-Street, New-York.

PARSONS & CO.,

FLUSHING, NEAR NEW-YORK,

OFFER FOR SALE an assortment of trees and plants which they have grown for the use of amateurs, and have prepared, by frequent transplanting and other modes, for success in moving.

They are of fine size and symmetrical form, and among them will be found

Standard Apples of fine quality.

Standard Pears, Plums and Cherries.

Peaches, Apricots and Nectarines, on Plum stocks, and their own roots.

Dwarf Pears, of fine form, and ready for bearing.

Gooseberries and Currants, strong plants of the best sorts.

Raspberries, Fastolf, Red Antwerp, Fillbasket and other known sorts.

Strawberries of all the best varieties.

Native Grapes—Isabella, Catawba, and other hardy varieties.

Foreign Grapes—all the well-known sorts, with some new varieties of great excellence.

These plants are propagated from vines that have borne abundantly for some years, and are known to be correct.

Great care is taken in the cultivation of fruit trees, and none but those of the best quality are allowed to be sent out.

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Contains trees of all sizes for lawns and streets, including Elm, Silver, Norway, and Sycamore Maples, Catalpas, Lindens, Tulip Trees, Cypress, Larch, Willows, Ash, Abele, Oriental Plane, and all the best varieties of deciduous trees.

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The best shrubs include many fine varieties at low prices, for massing, of which the Rhododendron Catawbiense can be particularly recommended for its fine Evergreen foliage, showy bloom, and perfect hardiness.

The ROSES are cultivated in very large quantity, on their own roots, of all the most rare varieties, and to those who purchase in quantity, will be sold at greatly reduced rates.

THE EXOTIC DEPARTMENT

Contains a fine assortment of Camellias, grown as bushy rather than tall, slender plants; and also contains all the well-known varieties of exotic plants and many rare sorts, introduced from Europe annually. These are all carefully grown for those who desire plants of symmetry and beauty.

CATALOGUES of all the departments furnished on application. Great care will be taken in packing, and trees will be delivered in New-York, and thence shipped as directed. Oct. 15—w4tm1t

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Lawton Blackberry Plants.

FOR Descriptive Circulars and Price—address WM. LAWTON, No. 54 Wall-Street, New-York, or call at his office. Oct. 1—eow5tm2t.

Notice Extraordinary.

To Farmers who consult their Interest and Comfort.

THE Celebrated Excelsior Horse Power Thresher and Separator, manufactured by the subscriber, has been awarded the FIRST PREMIUM by the United States Agricultural Society at their great exhibition in Louisville, Ky., Sept. 1, 2, 3, 4 and 5, 1857. It was tested in competition with all the best Powers made in this country, in presence of the judges, and was pronounced the best, as its name indicates. Those wishing these machines will apply soon, as the demand is large and the supply limited. Get the best, which is always the cheapest.

Agents wanted where none are established, and if well recommended, a liberal commission will be given them.

Descriptive Circulars furnished on application, gratis

For further particulars address RICH. H. PEASE,
Sept. 17—w13tm3t. Albany, N.

MACEDON NURSERY.

THOMAS & HERENDEEN

OFFER for sale an extensive collection of APPLES, PEACHES, CHERRIES, PEARS and PLUMS, and Hardy GRAPES, RASPBERRIES, GOOSEBERRIES, CURRANTS, and other of the smaller Fruits of the most valuable sorts grown in the Northern States, and in

ALL CASES PROVED GENUINE.

Their Ornamental Department contains the best

Hardy Imported and American Evergreens,

Ornamental Trees, Shrubs, and Herbaceous Flowering Plants, the latter especially selected for their showy and brilliant character, in fitting them for Lawns and Door-Yard scenery.

All orders directed to "THOMAS & HERENDEEN, Macedon, Wayne Co., N. Y.," will meet with careful and prompt attention, and the Trees and Plants will be packed in the most secure manner for safe conveyance to any part of the United States.

A general or Retail Catalogue, and a condensed and Wholesale Catalogue for Nurserymen and Dealers only, furnished on the receipt of a stamp for the postage on each. Oct. 1—w5tm2t

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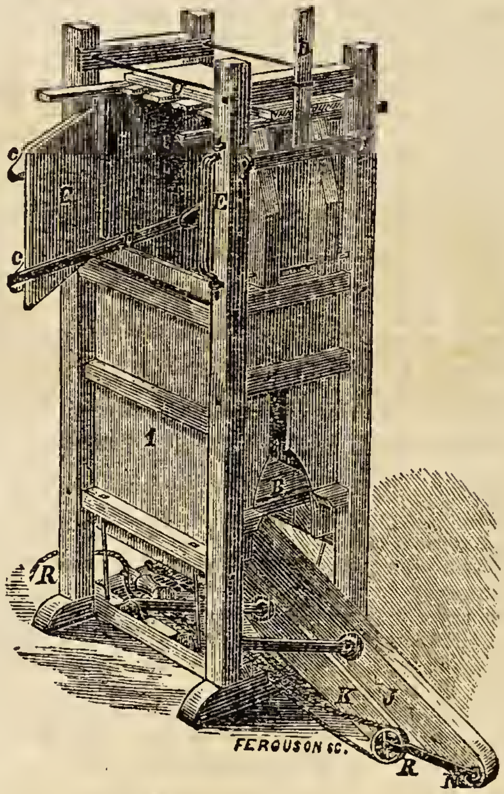

Dederick's Parallel Lever Hay Press.

THE subscriber is now manufacturing the above unequalled Hay Press, at the establishment formerly carried on by William Deering & Co.

To this Press has been awarded Medals and Diplomas at every Agricultural and Mechanical Fair at which it has been exhibited.

NO.	BALES FROM,	PRICE.
1,	375 to 425 lbs.	$165
2,	275 to 325 "	140
3,	240 to 275 "	130

$2.00 extra if taken apart and boxed.

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Oct. 15—w2tm1t or, Davidson & Viele, Albany, N. Y.

Berkshire Pigs for Sale!

WARRANTED of pure breed, and at a low figure.
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PERUVIAN GUANO,

In large or small quantities at Lowest Market Price

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☞ BEWARE of adulterated or damp Guano, and of all other FERTILIZERS which can be mixed or depreciated without detection. The demand for artificial and commercial fertilizers is now so large in the United States, that it is becoming a great object to adulterate them. This has been done to so considerable an extent in England, as to have called for the most stringent measures for the exposure of rascality, and the protection of farmers.

Feb. 26—weow&mtf

PERUVIAN GUANO,

Superphosphate of Lime, &c.

THE best quality of Peruvian Guano, with Government weight and brand on each bag., by the cargo or in smaller quantities, at the LOWEST PRICE.

SUPERPHOSPHATE OF LIME...Being agent of the largest manufacturers, I can supply a first-rate article at the lowest manufacturer's prices.

BONE-DUST—Coarse and fine ground—also sawings and filings.

POUDRETTE and TAFEU by the barrel.

My warehouse is the LARGEST depot in the United States for the various kinds of FERTILIZERS. all of which are guaranteed of the best and most reliable quality.

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A large and complete assortment of all the improved kinds.

MOWING AND REAPING Machines.

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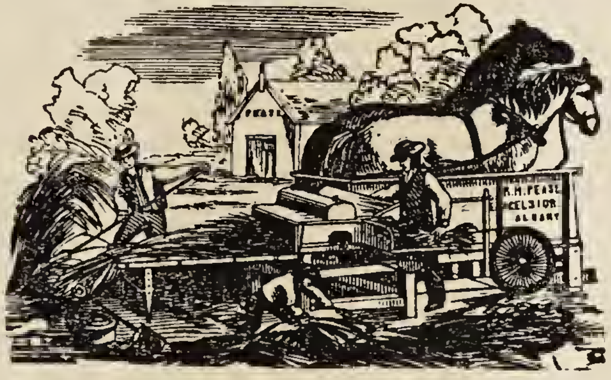

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RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered. RICH'D H. PEASE.

CERTIFICATES.

Bedford Co. Tenn. Oct. 15, 1856.

We the undersigned hereby certify that we have purchased of the Agent of the Manufacturer, Richard H. Pease of Albany, New-York, his "Excelsior Horse Power and Thresher," and having used them a sufficient length of time to convince us of their utility and durability, feel no hesitancy in saying that in our opinion they are the very best of which we have any knowledge, they having performed to our entire satisfaction. Given under our hand, day and date above.

Garret Phillips,
M. L. Dismukes,
Thos. Lipscomb,
Wm. A. Allen,
J. T. Arnold,
W. W. Hastings,
James Mullins.

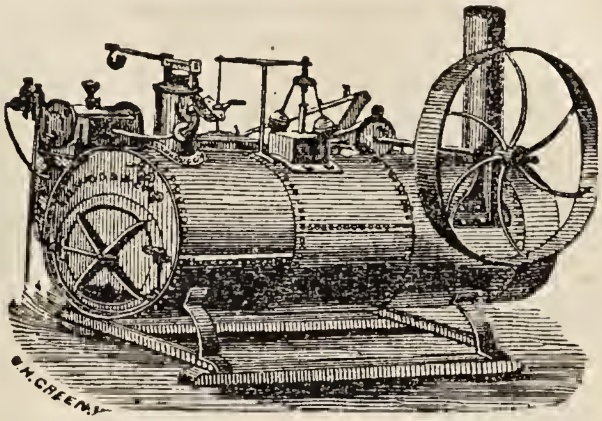
Benj. Garrett,
Alex. Sanders.
Wm. M. Goggin,
Alex. Eakin,
Redding George,
J. J. Koonce,
W. C. J. Brown,

H. D. Davidson.

East Greenwich, N. Y., Feb. 25, 1857

Mr. R. H. Pease—I received the Two Horse Power, Thresher and Separator I purchased of you, and put it to work to test it. I have threshed 2,500 bushels of wheat, oats and rye with them, without a break of any kind. It works to my entire satisfaction, and I think there is no better machine made Wm. McNeil.

May 14—w&mtf.



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WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

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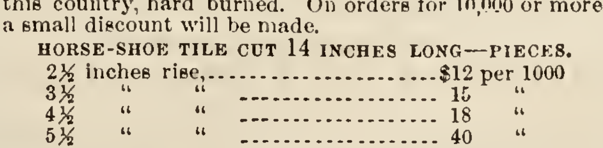
Horse power	estimate weight	space occupied	cash price	fly-wheel diameter	face of wheel
2½	2000 ℔.	4 by 5 ft.	$240	39 in.	5½ in.
3	2200 "	5 by 5 "	290	39 "	5½ "
4	2500 "	7 by 5 "	355	40 "	6 "
6	3600 "	7 by 5 "	550	44 "	7 "
8	4800 "	9 by 6½ "	700	48 "	8 "
10	6000 "	10 by 6½ "	875	60 "	8 "
12	7500 "	14 by 6½ "	1050	72 "	12 "

The above price includes boxing and delivered on board cars. A. N. WOOD & CO.

April 23—wtf—June 1—mft.



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HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2½ inches rise,	$12 per 1000
3½ " "	15 "
4½ " "	18 "
5½ " "	40 "
6½ " "	60 "
8 " "	80 "

SOLE TILE CUT 14 INCHES LONG—PIECES.

2 inches rise,	$12 per 1000
3 " "	18 "
4 " "	40 "
5 " "	60 "
6 " "	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

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Albany, N. Y.

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Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.

Contents of this Number.

THE FARM.

To our Agents and Friends, 329
Onions, Culture of, by C. R. C. Martin, 330
A Sheep Barn, Plan of, 331
County Ag. Fairs, 331
Draining with Stone and Tile, by Jas. Arkell, 333
Ohio State Fair, 333
Superphosphate of Lime, by J. Levesque, Jr., 334
How to Increase your Manure, by W. G. Wyman, 335
Leaves, &c., for Manure, 336
Hand Mill for Crushing Sugar Cane, by J. W. Clark, 337
Molasses from the Chinese Sugar Cane, by P. A. S., 337
Madison County Fair, 337
Culture of Millet, by H. A. G., 338
Power Hayfork, Hay Caps, &c., by J. Arkell, 338
Horse-shoe and Sole Tile, by Geo. Alderson, 339
Composition Walls for Buildings, by J. M. M., 339
Wheat will not Turn to Chess, 340
Tile Draining, 340
Perkin's Corn Husker, 341
Excelsior Farm Mill, by D. D. Foot, 342
How to Save Corn Fodder, by W. C., 342
New-York State Fair at Buffalo, 344
Molasses from the Chinese Sugar Cane, by A. N, House, S. Foster, and H. Williamson, 347
Farming in New-Hampshire, by L. B., 348
Edward Everett's Address at Buffalo, 349
Inquiries and Answers, 350, 357
New-Hampshire State Fair, by L. B., 352
Night Soil—its Value and Preparation, by G. T, H., 352
Sugar Cane Mills, by J. H. Reed, 353
Notes for the Month, 354

THE GRAZIER.

Sale of Mr. Stone's Short-Horns, &c., by T. L. Harison, 332
How to Fatten Poultry, by Boston, 332
To Destroy Lice on Cattle, &c., by J. L. Edgerton, 333
Cure for Sweney, by C. D. Gray, 335
Cure for Scratches, by J. B. Whitehead, 335
Precautions against Pestilence and Disease in Cattle, 340
Poll-evil, Remedy for, 342
Weaning Calves, by A Subscriber, 342
Horse Show at Springfield, 342
South-Down Ram "Frank," 344
Morgan Horse "Paul Clifford." 345

THE HORTICULTURIST.

Ornamental Shrubs, 334
Culture of the Cranberry, by D. L. Halsey, 334
Fruit Tree Borers, 338
How to Raise Melons and Cucumbers, 339
Watering Trees and Plants, by R. M. Conklin, 342
Downing's Fruit and Fruit Trees of America, 343
Grubs in Apple Trees, by Orchardist, 351
Seedling Peaches, 351
Culture of Turnips and Radishes, by J. White, 351
Planting Grape Cuttings, by H. C. W., 351

DOMESTIC ECONOMY.

How to Preserve Cider Sweet, by C. T. Alvord, 339
Cider Champagne Wine — Clarified Cider — Cider Wine, by H., 343
Sewing Machines for the Family, by Elsie, 349

ILLUSTRATIONS.

Sheep Barn, 331
Sugar Cane Mill, 337
Perkin's Corn Husker, 341
South-Down Ram, 344
Morgan Horse, 345
Sewing Machine, 349

The Illustrated Annual

REGISTER OF RURAL AFFAIRS FOR 1858,

Is now ready for delivery—ILLUSTRATED WITH ONE HUNDRED AND THIRTY ENGRAVINGS, and comprising a great variety of valuable Hints and Suggestions for every Country Resident. The following is a brief and imperfect

EPITOME OF ITS CONTENTS:

I. A COMPLETE COUNTRY RESIDENCE. The Dwelling—Plan of First Floor; Chamber Floor; Construction of Roof and Cellar Walls. The Grounds—Laying out and Ornamental Structures; the Flower Garden; the Dwarf Pear and Fruit Garden; the Kitchen Garden; the Orchard; Hedges. Out Buildings—Smoke House and Ashery; Range of Farm Buildings; Piggery; Poultry House.

II. RULES FOR EXTERIOR DESIGNS FOR HOUSES.

III. THE APIARY — Queens, Workers and Drones; Hives—their Construction; Size for different latitudes; Glass Boxes for Honey; Swarm coming out; Winter Management, &c.

IV. COUNTRY HOUSES. Laborer's Cottages—Design by Mr. Downing; Second Design, with mode of constructing Eaves. Swiss Suburban Cottage—Design and Plans. Stone Cottage—Design and Plans. Small Farm House—Design and Plans. Plain House in Cottage Gothic Style—Design and Plans. Cheap Farm House—Design and Plans. Bracketted Farm House—Design and Plans. Italian Farm House—Design and Plans. Battened Country House—Design, Plan and ftudy for an appropriate ornamental Gate. Gothic Mansion—Design and Plan.

V. NOTES ON FRUITS. Culture of Fruits——Familiar Hints; Treatment of Trees; Sprouts about Fruit Trees; Regrafting Old Trees. The Grape—the Rebecca; Keeping Grapes; Grapes around Boston. The Currant—Varieties of the Currant; Effect of Cultivation; the Currant as a "Bush" and "Tree." The Apple—Apples for Cooking; Molasses from Apples; Productive Young Orchard. The Pear—Fire Blight in Pears; Two Hundred Dollar Trees; Ripening Winter Pears. The Plum—Catching Curculios. Pruning and Grafting Shears. Fruit Ladders.

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VII. ANNUAL FLOWERS. Descriptive Lists and Methods of Culture; Mode of Sowing; Hardy and Tender. Choice Annuals.

VIII. GARDEN STRUCTURES. A Cheap Vinery—Design and Cost. Cheap Green House—Common Green House; Kew Conservatory.

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XI. VARIOUS FACTS IN TILLAGE—Depth of Sowing Wheat—Good Rotation—Wheat Crop Improving—Grass Lands—Dividends from Tile—Heavy Potatoes—Plowing Wet Land—Cheap Farm Laborer—Long and Short Manure—Value of Straw in Manure—Manure enriched by Grain—Harrowing Inverted Sod.

XII. IMPROVED DOMESTIC ANIMALS—Jersey and Suffolk Cattle—Cheviot, and Silesian and French Merino Sheep—Portuguese and Chinese Swine. FEEDING—Experiments with Hogs—Food of Cows—Rules for Fattening.

XIII. RURAL ECONOMY—Constructing Stables—Questions and Answers—Corn Shocks—Animals in Winter—Storing Ice—Planting Timber—Shelter—Double-Minded Farmers—To make Hens Lay in Winter—Feeding Bees—Preparation of Hams.

XIV. DOMESTIC ECONOMY—Broken China—Sticking Salve—Frozen Pumps—Flies—Knitting Stocking Heels—Rat Traps—Owls—Stings and Bites—Door Latches—Chimneys—Matches—P. O. Stamps—To Mend a Chain Pump without taking it up, and many other valuable Items.

XV. MISCELLANEOUS ARTICLES — Steamer for Cooking Feed — Potatoes in Winter — Disease of Domestic Animals—Weight of Grain—Root Crops—Cheap Fences—Ventilation—Good and Bad Management.

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395 Broadway, Albany, N. Y.

THE CULTIVATOR.

FORBES. VAN VRANKEN. N.Y.

THIRD 𝔗𝔬 𝔍𝔪𝔭𝔯𝔬𝔳𝔢 𝔱𝔥𝔢 𝔖𝔬𝔦𝔩 𝔞𝔫𝔡 𝔱𝔥𝔢 𝔐𝔦𝔫𝔡. SERIES

VOL. V. ALBANY, DECEMBER, 1857. No. XII.

The Cultivator for 1858—Seasonable Items.

ECONOMY IN HARD TIMES.—Agricultural Reading is not a luxury but a necessity. Let no one give it up this winter, because it may be a little difficult to procure currency or specie to remit. Precisely what we shall aim to accomplish is, to prepare the farmer to meet low prices by increasing his crops; to enable him to avail himself of high prices in unfavorable seasons, by keeping up the fertilily and tilth of his lands; to save him expense and mistakes in the application of manures, in the care of his stock, in all the processes of the farm and fruit garden, and in a word, to return *once a month* to the careful reader, the full value of the half-dollar he pays us at the beginning of the year.

THE INDEX.—This month's number is partially occupied by a full and complete Index for the year, rendering each volume a perfect book for constant consultation. This is an important point, and more than counterbalances the exclusion of an equal amount of other reading. By reference to this index, the vast amount and variety contained each year in the CULTIVATOR will be at once apparent.

SHOW-BILLS AND PROSPECTUSES.—We shall be glad to supply these for general dissemination. Agents or others who have failed to receive them up to this time, or who wish further supplies, will please "make a note of this."

POST-OFFICES.—These and the STATE should always be specified with great care, and it is an additional precaution against mistakes to add the *County*. Clubs of subscribers may be sent to as many different offices as may be desired.

THE REGISTER FOR 1858.—We have already sent out large numbers of this valuable work, and shall be pleased to send a copy to any one who wishes it for use in procuring subscribers for the CULTIVATOR or COUNTRY GENTLEMAN. ☞ *Those who have already had cocies of the Register to furnish to their subscribers, should be particular to specify this fact*, when they send in complete lists of names and the subscription money.

RURAL AFFAIRS.—This volume is perhaps the most complete and beautiful work ever issued of its kind. It contains 336 pages and 440 Engravings, and retails for $1 post paid. In order to place it in the hands of as large a number as possible, agents are desired in all parts of the country, who will find it meet with a ready sale.

TERMS TO CLUBS AND SINGLY.—The following are our lowest terms—on which the Agent should charge a sufficient advance to remunerate him for his trouble:

The COUNTRY GENTLEMAN, one year,	To Clubs,	$1.50
	Single Copy,	2.00
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THE CULTIVATOR, one year,	To Clubs,	38
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The commissions thus afforded, are exceeded by no contemporary, and in view of the value and typographical execution of the works, rank them among the cheapest ever offered to the public.

A PREMIUM TO EACH SUBSCRIBER.—We are enabled to offer the ANNUAL REGISTER to each subscriber as a beautiful New-Year's Present, by clubbing it on the above terms with the COUNTRY GENTLEMAN when *Eight Copies*, and with the CULTIVATOR when *Ten Copies* are taken.

PREMIUMS TO AGENTS.—The same persons and lists of subscribers will compete for two lists of Premiums, one to be awarded January First and the other in April, according to the following schedule—retaining for ourselves the privilege, however, of *increasing the second list* as circumstances may render expedient.

1. For the largest amount of cash subscriptions to our Journals, at the lowest Club Rates as specified above, received at this office, January 1st, or previously, we will pay,...... TWENTY-FIVE DOLLARS.
2. For the TWO next largest amounts, each, TWENTY DOLLARS.
3. For the THREE next largest amounts, each, FIFTEEN DOLLARS.
4. For the FOUR next largest amounts, each, TEN DOLLARS.
5. For the FIVE next largest amounts, each, FIVE DOLLARS.

IN ALL FIFTEEN CASH PRIZES AS NEW YEAR'S PRESENTS TO OUR AGENTS, AND AS MANY MORE IN PROSPECT.

SUBSCRIBERS IN THE BRITISH PROVINCES—Will remember that we are obliged to charge them *Six Cents a Copy more* for the CULTIVATOR, and *Twenty-Six Cents a Copy more* for the COUNTRY GENTLEMAN, than the prices above named, to cover American Postage to the lines. LUTHER TUCKER & SON, ALBANY, N. Y.

Cost and Profits of a Half Acre Garden.

Messrs. Editors—Will you have the kindness to answer the following questions in the next number of the "Country Gentleman?" What will it cost to fence a half acre lot on three sides, with a common board fence? What will it cost to plow said lot? How much seed, (such as is usually found in a garden,) would be necessary to plant, and the cost? What would be the cost of six fruit trees—four apple, one cherry and one plum—such as you would recommend? What is the lowest sum that would be necessary to build a house 14 by 20 feet? What sized house ought to be built for $500 00—plain and substantial? How much produce could I raise on said lot, and how much would it bring in market?

I have just purchased a lot containing half an acre of land, and wish to commence improvements in the spring. By answering the above questions you will assist me very much. I don't expect that you will give me *exact* answers, but would like to have you answer them as near as you can. A. P. L. *Burlington, Vt.*

The cost of the board fence will vary with the price of boards and posts, and with the mode of building. A simple rough board fence, neatly made, will cost about $1.25 per rod at the lowest—a good one $1.50. A rough picket fence, six feet high, to exclude stragglers, will cost about $3.00 a rod. A *square* half acre is nine rods on each side, and three sides are 27 rods. At $1.25 per rod, the cost of fencing would be about $34—at $3, it would be $81.

A common, simple plowing could be performed for $1.50—a thorough subsoiling and trench-plowing would be about $7 or 8.

The cost of seed to plant half an acre with a miscellaneous collection of garden vegetables, merely to supply a family, is estimated by Buist at $10. For marketing merely, the character of the market would greatly modify the selection, and it could be only determined by experience. The cost of six fruit trees would be two dollars.

A house 14 by 20 feet, with rough and whitewashed exterior, matched siding, and lathed and plastered inside, without cellar or garret, could be built for a hundred dollars. With cellar, an attic with two bed rooms, (story and a half house) and planed and painted outside, the cost would not be far from two hundred and fifty dollars. A dwelling double this size, or more, with cellar, upper rooms, and finish like the last, would cost about $500.

Not being familiar with the business of market gardening, we could not give any estimate of the amount the half acre would yield. It would of course depend greatly on the character of the soil, amount of manure, skill in cultivation, nature of the market, experience and tact in meeting the demands of the market, and kinds of crops raised. A poor cultivator might not ob-fifty dollars a year—a skillful one might make hundreds.

* * *

Winter Feed for Milch Cows.

Messrs. Editors—I wrote to you some time ago for information in relation to Savage's Steam-boiler, and mentioned to you that I was sending milk to New-York by the Harlem railroad, and wanted to find the best way to heat water in sufficient quantities to scald feed for about thirty cows daily, through the winter.

In your reply you requested me to write for publication in your papers, my mode of preparing cow feed in winter, and how I feed my cows in summer; and now, after some delay, I will endeavor to comply with your request.

In summer, I turn them to pasture, having a plenty of rough land that is good for little else.

In winter, their feed consists of corn, oats and hay. I bring in a portion of my corn in the stout, without husking, when sufficiently dry, and mow it away for winter use. I then cut the corn, together with oats in the sheaf, and tread the mixture down in a large feed tub, or a hogshead with one head, and turn on fifty or sixty gallons of boiling water, which softens the corn so that the cows can eat it without making their teeth sore, and the oats will be perfectly cooked through, so that they will all digest.

I have one of Daniel's patent feed cutters, which I purchased about three years ago at R. L. Allen's agricultural ware-house and seed store, at 189 and 191 Water st., New-York—cost, twenty-five dollars. It is calculated to go by horse power, but is the best hand power cutter I have ever seen, and when in good order, two men will cut feed enough in one hour for my thirty cows one day, or two feedings.

One hogshead full of feed, well trod down, will make about thirty pailfuls, or one feeding for my cows. I feed them twice a day with this feed, and they have what hay they want besides.

The advantage that I find in preparing my feed in this way, over that of threshing and grinding, is—1st. It is cheaper to cut my oats and corn than to thresh and husk the same—2d. I save the trouble of carrying my corn and oats two miles to mill, and bringing it home again—3d. I save the toll which is something of an item—4th. The whole of the oats, straw, chaff, &c., and the whole of the corn, stalks, husks, cobs, silk and all, is eaten, except some of the largest butt ends of the stalks are left, which I consider no loss, as they are not fit for any animal to eat—5th. I get more milk than I can make out of dry feed; and although I have tried no definite experiments, I am satisfied that the same quantity of corn and oats prepared in this way will go about as far again as to thresh and grind them, and throw away the straw and chaff, which, fed dry, (in case a cow can be coaxed to eat it,) will only have the effect to dry up her milk.

My cows eat their feed greedily, and with two heaping pailfuls a day to each cow, it requires less hay to fill them up, and as each cow gets three or four gallons of water in her scalded feed, night and morning, while standing in her stall, she will not crave so large a quantity of cold water when let out in the morning, as she would if fed on dry provender and hay; and the chilling effects of cold water taken in large quantities, cannot be very favorable to the making of milk.

Corn, to be fed in this way, should be planted not over three feet apart each way, so that the stalks will not be very coarse and the more leafy, and although the ears will not be very large, yet they will probably yield as much weight by the acre as when planted three and a half or four feet apart, and particular care should be taken to have it secured and brought in in good order.

The objection to this mode of preparing food, is the trouble and expense of heating water, which I think might be greatly obviated by bringing into use some of the newly improved boilers that are advertised for heating houses, &c., with very little time and fuel, and have them so constructed as to adapt them to our use.

I believe this to be the true way to feed oats to milking cows, but corn prepared in this way does not perfectly digest, and ought to be put into a large boiler, and by standing a few hours over the same fire that it requires simply to boil the water, the kernels will crack open and become perfectly digestible. I have practiced the latter course for two winters past with good success, by using a wooden box with a sheet iron bottom, but it takes rather too much wood, and the box gets dried up and out of order every summer.

The object of my former inquiry was to find some kind of a boiler to meet my particular wants, and any information in relation to the subject through the columns of The Cultivator, will be thankfully received by a subscriber. H. H. *Wassaic, Dutchess Co., N. Y.*

The Statistical Agriculture of New-York.

Quite a complete index to Agricultural operations in this State during the year 1854, is furnished by the census for the succeeding year, the results of which have recently been compiled with great judgment into a valuable volume, by Dr. F. B. HOUGH.

Extent of Surface Farmed. The area of the State, according to Burr's Atlas, is 28,297,142 acres, and in 1855, 28,059,994 acres were assessed. The number reported in the Agricultural returns is:

ACRES IMPROVED, including all land reclaimed from a state of nature, deducting highways, lakes and ponds of water, when the latter exceed ten acres in area,	13,657,491
ACRES UNIMPROVED, including woodlands, uncultivated swamps and marshes, and lakes and ponds of water over ten acres in area, if considered private property,	13,100,692
Total,	26,758,183

Presuming these figures to be entitled to an equal degree of credit, it will appear by subtraction, that 1,301,811 acres assessed, but not returned agriculturally, must be consumed by villages and cities, lots in which, even if not built upon, are excluded above, unless under actual cultivation. The returns of Improved Lands show an increase in five years of 1,248,497 acres, while those of unimproved lands are very nearly double the number returned in 1850.

The number of farms in 1855, is 231,740, averaging to each a total of nearly 116 acres, about one-half of which, or 59 acres, were improved. In 1850 there were 170,621 farms of about 112 acres each, of which 73 acres or about two-thirds were improved. Thus the improved lands, although really advanced in amount about 10 per cent., show an apparent decline when compared with the increase in the number of farms, which was equal to 36 per cent, and still more in proportion to that in unimproved lands, which was 95 per cent. This is doubtless owing mainly to emigration to the West, which might operate to prevent bringing into actual cultivation an area commensurate with the number and extent of the new farms opened.

The largest county in the State is St. Lawrence, which returns 499,554 acres of improved, and 885,531 of uninproved lands. Next come Franklin with 144,627 of the former, and 834,965 of the latter, Essex with 185,443 against 774,195, Delaware with 364,400 against 438,452, Steuben with 361,450 against 438,250, Hamilton with only 16,676 improved acres against 766,979 unimproved; then Herkimer with 267,414 of the one, 505,607 of the other, Oneida with 435,800 against 286,594, and Jefferson with 465,222 against 251,291. With the exception of the two last, unimproved lands predominate in the above. Columbia has the greatest proportion of improved lands to her unimproved of all the counties in the State—over four and a third acres to one. Next in this particular, and in the order named, come Montgomery, Dutchess, Albany and Seneca, while Yates, Onondaga, Ontario and Schenectady are nearly in the same proportions, as are also Genesee and Orleans, Monroe and Kings. Twenty-six counties, beside the above fifteen, contain more improved than unimproved lands, although the difference is pro

Capital employed. The total value of farms in 1855 was $799,355,367,* against $554,546,842, in 1850, which although averaging almost precisely the same value per acre in both years, ($29 in 1850, and $29.75 in 1855,) appears to show nevertheless some appreciation in the rate at which improved lands were held, to overcome the considerably larger ratio of unimproved territory reported in the latter of the two years. These values were those at which it was presumed a farm would sell, improvements and all, without reference to the sum at which it was assessed.

The 1,974 acres of farming land reported in New-York county, of course far exceed in average value any others in the State, aggregating $4,324,700. We have not time to work out averages for other counties to compare them all. In each of the following, farming lands are valued at over $20,000,000, decreasing in the order they follow one another from the first two, which are both over $29,000,000:—Monroe, Westchester, Dutchess, Onondaga, Erie, Oneida, Livingston, Orange, Ontario and Cayuga.

The total value of the domestic animals with which the farms of the State were stocked, was $103,776,053, and that of tools and implements, $26,927,502, in 1855, against $73,570,496 for the former, and $22,084,926 for the latter, in 1850. This was at nearly the same average to each farm at both dates, the amount of stock and implements to each in 1850 being $560, and in 1855, $564.

We should like very much to compare these figures with the returns of some county in Great Britain, if the requisite statistics were at hand What the result would be, we cannot tell, but imagine that our English or Scotch readers will be surprised to learn that at so recent a period the average amount of farm capital in a State we look upon as so much advanced as New-York, was only

For 116 acres, at $29.75 per acre,	$3,451.00
For total value of all stock and implements,	564.00
Being an aggregate of,	$4,015.00

Including all buildings and improvements—and that scarcely *one-half* the land was "reclaimed from a state of nature." This would be a little over £800 sterling, and in our paper for Oct. 22 (p. 272) we copied an instance in which more than half this sum (£440) was paid in Great Britain merely for the *manuring* of 140 acres. We refer to this not to argue that what is best in one country, is uniformly best in all others, but rather to call attention to a fact which is often overlooked in talking about "the profits of farming," viz: the disadvantage under which our farmers almost uniformly labor from lack of capital. And we may add by way of parenthesis, that we believe it to be the best policy to accumulate capital by farming a small surface first in the best possible manner, availing oneself of all means of improvement that may be required, such as draining, manures, &c., and gradually extending this thorough mode of operation to a larger surface, instead of being at all the expense with none of the returns of a large farm.

In 12 counties there are over 50,000 head of neat cattle, beginning with St Lawrence, which has 96,408, and going in order—Jefferson, Oneida, Chautauque, Chenango, Delaware, Otsego, Cattaraugus, Orange, Dutchess and Steuben,—down to Onondaga, which has 50,228, and Herkimer with 49,820. These are our great dairy and grazing counties, although several others probably have as large (possibly larger) numbers in proportion to their extent. It is difficult to compare their grazing stock exactly, as the returns specify "the number of cattle *killed* for beef," which of course gives the counties containing cities, where the cattle are taken to be butchered, an advantage in the figures over those in which they were fed. Thus under this head, New-York has 44,405, Albany 11,466, Oneida 15,061, and no other county over 5,000, with the exception of Erie, Rensselaer and Kings, in which Buffalo, Troy and Brooklyn are the markets.

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* It may be interesting to compare this sum with the amount of real estate owned in cities and villages. The aggregate assessed value of real estate in 1855, was $1,107,272,715. Deducting from this the reported value of farming property, we have $307,917,348 as the sum representing city and village real estate—in other words, notwithstanding the low rate at which farming lands are held, and the inordinately high prices at which city property has been generally selling, we have in the State nearly $2.60, ($259.60) in the former, for every $100 of the latter. It should in justice be added, however, that a division of the above valuation of city and village real estate, by the number of acres which we have supposed it to include, gives only the very moderate dividend of $236.53 as the average per acre.

In milk sold, Orange maintains her supremacy. Our New-York readers will derive some comfort from these statistics, as they show that the label "Orange Co. Milk," so often seen, in that milk diluted and bepoisoned city, are not all humbug. She disposes of 4,553,514 gallons; Kings of 3,033,291; Westchester of 2.696,411; Dutchess of 1,970,368; Putnam of 1,888,910; Erie of 1,173,085, and Rensselaer 1,026,305. In butter making Orange also does pretty well; but five counties do better—St. Lawrence makes 4,268,809 lbs.; Delaware 4,026,575; Chenango 3,990,564; Jefferson 3,949,608, and Chautauque 3,389,837, while the figures for Orange are 3,285,587. Herkimer takes the lead immensely on cheese—making 9,068,519 lbs. Next come Oneida with something over three millions lbs., and Jefferson, Madison and Erie with between two and three million pounds, while Lewis, St. Lawrence, Otsego and Montgomery, all make over a million and a half.

As to other stock, the State owns 579,715 horses, 2,254 mules; of swine 530,176 under the tender age of six months, and 539,616 over it; of sheep 3,217,024, and poultry to the value of $1,076,598. The total number of neat cattle is 2,105,465. Jefferson takes the precedence in horses, and Ontario in sheep. Comparing the total number of lbs. of wool yielded, 9,231,959, with that of the fleeces shorn, 2,630,203, we have an average to each of a fraction over three and a half pounds. Dutchess county lays the most eggs, and Suffolk and Albany come next; Genesee and Queens, however, hatch the most chickens.

Crops yielded. Here the field is so wide that our space will admit of but a few random observations. The number of acres sown to Wheat, both winter and spring, in 1854, was 795,488, and the aggregate yield in bushels 9,092,402, an average of 11.43 bushels per acre. In 1844, the only other year for which we have data of comparison, the area sown was 1,013,655 acres averaging 13 21 bushels per acre—a decrease for 10 years in the average yield, of about a bushel and three quarters, and in the area sown, of 218,167 acres. It should be remembered, however, that the season of 1854, (to which the census returns of 1855 refer,) was one of extreme drought, and that in many instances the wheat crop was so injured from this cause and by insects as not to be worth harvesting.

We subjoin some figures of the same kind in relation to other crops—all of which must, however, be considered below an average yield—omitting small fractions of acres and bushels:

	1845.	1855.
Oats, acres sown,	1,026,915	1,349,384
Bushels harvested,	26,323,051	27,015,296
Rye, acres sown,	317,099	281,715
Bushels harvested,	2,966,322	3.039.438
Barley, acres sown,	192,503	212,608
Bushels harvested,	3,108,704	3,563,540
Buckwheat, acres sown,	255,495	293 233
Bushels harvested,	3,634.679	2,481,079
Indian Corn, acres planted,	595,134	917,601
Bushels harvested,	14,722,114	19,290,691
Potatoes, acres planted,	255,762	220,576
Bushels harvested,	23,653,418	15,191,852

Rye here is the only crop that seems to have done better in 1855 than 10 years before—the average in the latter year being 10.79 bushels per acre against 9.35 in the former—neither figure, however, exciting our admiration particularly. The average of Indian corn fell off from nearly twenty-four and three-quarters bushels, to twenty-one and two one-hundredths, and that of Potatoes from about 92½ to less than 70.

Of winter wheat, Livingston was the only county yielding in 1854 over a million bushels, and the following counties ranked next in order, all producing over half a million—Monroe, Genesee, Niagara and Ontario. Jefferson and St. Lawrence yielded far the most spring wheat. Onondaga is the great Oat county, producing over a million bushels, while next to her and all over 900,000 bushels, come Montgomery, Oneida, Cayuga and Otsego. Columbia leads in rye; Jefferson, Onondaga, Ontario and Cayuga in barley; Schoharie in buckwheat; St. Lawrence in peas, and Orleans in beans. Onondaga rather takes the foremost rank in Indian corn, and Monroe in potatoes, although the difference is not great, and several others may be larger yielders in proportion to surface. St. Lawrence mows and pastures the largest areas. In Onondaga, Jefferson, Cayuga and Steuben, there had been plowed the year previous (1854) the greatest number of acres.

The State produced 985,522 bushels of turnips, nearly 5 millions lbs. of lint, over 7 millions of hops, and 946,502 of tobacco. Our apple orchards yielded 13,668,830 bushels of fruit—only about a million and a half less than the product of potatoes—and were responsible for 273,639 barrels of cider. In Market gardens, 12,590 acres were employed, yielding products valued at $1,138,682. We made nearly five millions pounds of maple sugar, and 85,000 gallons of molasses, and collected over two millions and a half pounds of honey.

The value of the Special Manures used in the State, including "guano, gypsum, poudrette, saline compounds, and other substances prepared and sold as fertilizing agents, aside from those ordinarily produced on the farm," was returned at $663,464—a low figure, we should think. Nearly half of this was for gypsum or "plaster," and almost another quarter for guano.

Large Experiments with Chinese Sugar Cane.

Messrs. L. Tucker & Son—In your sheet under date of 15th Oct., I see several reports of trials with the sugar cane. Allow me to trouble you with another. Having planted several acres of the Sorghum I procured from Hedges & Free of Cincinnati, a cane mill, with three rollers 32 inches long by 11 inches diameter. Pans and other arrangements, which a novice might deem sufficient, were added, and we waited for the maturing of the cane.

Sept. 14th, we made our first trial. Cut and ground one acre by measurement. The per cent. of juice expressed from the cane by the mill was a trifle over fifty by weight. A load of cane, as it averaged when cut, gave one gallon of juice to eleven canes, and one gallon of fair syrup to eleven of juice. The cane was but fairly in blossom. The yield per acre was precisely 100 gallons.

This trial consumed two days. We then went into the field and spent one week in stripping cane.

Sept. 23d, resumed grinding. Found that our cane had increased very rapidly in its richness. The average yield of syrup to juice, was now one to eight, and per acre 135 gallons thick syrup, and improved in taste over the former. This trial consumed four and a half days and three acres of cane.

Oct. 7th, we resumed our experiments. The seed was nearly and quite ripe. The improvement in quality of juice surprised us all. One gallon of syrup, thick and smooth like honey, to six and one half of juice, was now the result. The yield was one hundred and sixty-two gallons per acre with two acres manufactured. R. J. Wilcox. *Sheffield, Bureau Co., Ill., Oct.,* 1857.

☞ The Economist reckons the wheat harvest in England this year as nearly or quite eight million bushels larger than in 1856, but thinks farmers will not fail to obtain a fairly remunerative price,—while the quality and weight of the wheat are so good as to justify the expectation that the price of bread may be reduced more in proportion than the price of the grain itself.

Wilmot's Portable Steam Saw, &c.

Editors of the Country Gentleman—The Fair of the Am. Institute is now closed, and I cannot but regret that this popular and rational source of enjoyment should cease, even for a season. I have had many rambles through its intricate maze of art and inventions—quite enough to bewilder anybody but a machinist. There was one of those numerous labor-saving inventions, however, exhibited in a distant and retired part of the immense building, which more particularly attracted my attention. This was a *Portable Steam Saw*, invented by Mr. Wilmot, for sawing down timber in the forest, and cutting it into any desired lengths. Certainly for adaptedness to the purposes designed, it can scarcely be excelled. The simplicity of its arrangement is such that any judicious laborer, after a few hours instruction, may manage it with ease. Then its extraordinary portability. I have seen other steam engines called portable, weighing tons; but here is an engine of five-horse power, that a sturdy yeoman will take upon his shoulder and walk into the woods. Two men are sufficient to move and adjust the machine, and when it is once applied to the tree, standing or prostrate, it does its work with surprising rapidity. Less than a minute is required to cut off a stick of two feet diameter, as was repeatedly proved at the Crystal Palace. The boiler is separate from the engine, on iron wheels. The steam is conveyed to the engine by a flexible hose of 100 or more feet. The modus operandi would be simply to hitch the oxen to the boiler car, and drive it to a convenient place in the forest, where it is set down, the engine and hose properly attached, the steam generated by burning wood, either green or dry, and the sawing commenced. The operator who tends the engine, sets upon it at ease, and regulates its motion by letting on or stopping off steam, as may be required. Thus a radius of one hundred and fifty feet may be swept entirely of timber without again moving the boiler. This is effected by the flexible hose, which may be turned in any direction, over the timber and through snow-banks as the case may require. Two men and a boy will cut some thirty or forty cords of wood per day. Two engines may be worked by the same boiler, and with two additional men will cut double the amount or nearly so. The advantages of such a machine in the heavily-timbered districts of our country, must be incalculable. When we consider the immense consumption of wood by steam-boats, railroads, and the various branches of manufacture, and that this consumption is yearly increasing, the mere advantage in saving by sawing is not to be overlooked. The difference between cutting with the axe or saw being about one-eighth, this difference is three-fold when the fuel is cut short for railroad and like purposes. The above named advantages will apply to the manufacture of staves, shingles, &c.

But there is another feature about it which may interest the agricultural reader more; and that is the simple and ingenious manner by which this same engine, by means of a slight alteration, is adapted to threshing grain, grinding, &c. Any farmer whose crops are sufficiently large to warrant the outlay, may thresh and grind his grain without incurring risk by fire, by reason of the proximity of the boiler to his barns or stacks; for it can be placed as far off as he may choose, provided he has sufficient length of hose. If it be desirable, he may have the boiler set in some convenient place attached to the dwelling.

There is a great variety of work which this machine may be made to perform. Drawing out heavy timber from impassable swamps. It may be used in mining; for its small size will allow it to enter any small mining shaft that will admit a man, being only about five to six feet long and eighteen to twenty inches inches wide. That a machine at so small a cost, with such varied powers of performance, should so long escape public attention, is unaccountable. The proprietorship of this invention is now in the hands of the Forest and Agricultural Steam Engine Co., 18 Water Street, Brooklyn. R. M. Conklin. *Cold Spring, N Y*

Sugar Cane for Milch Cows.

I planted 250 hills early, in rich, dry soil, having a southern aspect. The forepart of the season they made a poor show; late in the summer they came forward rapidly. In September a few hills exhibited full developed seeds, on stalks from 7 to 8 feet high. Convinced that none would mature ripened seed before a frost, I commenced cutting and feeding to my milch cows. They soon became very fond of it, eating the stalks with the greatest avidity, and in return giving a most marked increase of milk. Several hills were standing after 'the greenery' of the garden and the fields had been repeatedly *sered* by frost. The cane was much less affected than Indian corn standing near it, and only on the tips of the leaves could I or my cows discern it had been touched.

From my limited one year's experience, I make these deductions:

1. In the valley of the St. Lawrence the season must be *very* favorable and unusually 'elongated' to enable it to reproduce its seed.
2. For soiling milch cows, when pastures are short, it is better than Indian corn, (and perhaps than any other green food,) giving more fodder and more milk, and not being as liable to severe injury from early frosts
3. Therefore, when the seed is not too expensive, 'it will pay' small farmers at least to plant a patch.

As for growing cane *here* for saccharine purposes, where the Creator has placed, free cost, so many of his enduring sugar maples, to so little appreciated purpose, looks to me a little far-fetched. C. T. H. *St. Lawrence Co,, N. Y., Oct. 17.*

Lime and Compost.

Editors Co. Gent.—A subscriber and reader of your valuable paper, wishes to use on his wheat land this fall, lime as a fertilizer—please give him the necessary information as to time, manner and quantity to be used. The land to which I wish to apply it is exhausted broom sedg—old fields, gravelly and sandy surface, in North Carolina. The timber on said fields was black jack, post oak, mixed in the hickory. I wish during the winter to make compost manure, with alluvial deposit, straw, or bones and lime. Had I better make it in pens on the field, or in the barn-yard? Any suggestions on this topic would be useful to me, and I doubt not to many others: for if we would succeed as farmers we must make manure, as guano is too dear to be generally used. I don't know but that lime, which has to be brought some fifty miles by wagons, may, like the guano, be too dear. How would it do sowed in spring on the growing wheat before a shower, and how much to the acre? D. C. Mebain. *Greensboro, N. C.*

Lime, on some exhausted lands, has almost immediately doubled their value—in most instances it has effected a moderate or slight improvement, and in others it has proved of no value. Experiment must be resorted to as the test in such cases. From the character of the soil as described by our correspondent, we think there is strong reason to believe that lime or marl would be quite useful. Whether it would pay to draw fifty miles can only be determined by trial. We should prefer making the compost in the fields, as this would save carting such material twice, as may already exist there—first to the barn-yard, and then back again. The thinner the layers of materials, the less will be the mixing and working over. We should much prefer *autumn* application.

Grafting the Grape.

Can you give me some information in regard to grafting the grape-vine? I have some Isabella and Catawba of strong growth, but do not ripen well in this latitude. If they can be grafted, how and when to be done? G. V. *Lowville, N. Y.*

Grafting the grape can be performed without difficulty. First, cut the graft before any preparation for growth has commenced, and keep them in an ice-house or other cool place, until the leaves of the stock have begun to expand. Before this time the stock will "bleed," and prevent so certain success as afterwards. As soon as the leaves begin to open, the bleeding ceases. The grafts are inserted precisely as in fruit trees, and should be done as low down or near the root as practicable. Grafting clay or wax is then applied, and the work is done.

Injury to Apple Trees by the Winter.

Messrs. Editors—Having noticed a statement of Major M. R. Patrick of Sackets Harbor, in the last No. of the Cultivator, respecting the hardiness of the different varieties of the apple, I am induced to make a statement of my ill-luck with my orchard, from the severity of the past winter. I have lost seven fine bearing apple trees, obtained some years ago from Macedon, and six or eight more badly damaged, but think they will get over it. The first symptom of the injury I observed early last spring, was the bark turning black about the collar of the tree, from one to two feet up the trunk. I took it off, but the distance between the upper and lower bark was too great ever to unite; the trees showed rapid signs of failing, and I took them up to replace them with other sorts. Some were killed outright. The sorts killed were Baldwin, Gravenstein and Northern Spy. Those injured were Hubbardston Nonsuch, American and Summer Pearmain. Those which escaped, Boston Russet, (which stood in a sheltered location,) Esopus Spitzenburg, Winter Pearmain, Rambo, Porter, Rhode Island Greening and many others. The orchard slopes to the west, receiving the cold cutting winds of the north-west—the soil is sandy, and the land is constantly cultivated. I am sorry that Major Patrick did not state where the injury of his trees commenced—whether at the trunk or branch. I omitted to state that on the trees that were injured the bark cracked open badly, leaving the orifice bare to the wood. J. Waters. *Lanesville.*

Suffolk Pigs.

Editors Country Gentleman—Among the various domestic animals which are of high value to the farmer, is the hog; and in the selection of the breed much care is necessary in order to obtain those which will not only produce the most marketable flesh, but as well those requiring the least expensive feed, both in quantity and quality. The Suffolks will probably rank highest among this class, and may be known by their thin, small ears, short snout inclined to turn up, short legs and small bones. They are thick through the shoulders, very handsomely proportioned in body, and possessing beautiful hams. Their color is either white or light flesh color, when o the pure breed, and are indeed an ornament to the farm.

These animals are less inclined to cutaneous diseases than numerous others, and do not, under any circumstances, produce that strong musky flavored pork we sometimes find in market. They are not a gross unwieldy animal, generally ranging from 250 to 300 lbs. weight at twelve months of age, which latter weight they seldom exceed. They are clean feeders, and require much less than any other breed known.

For large hogs, a cross between these and the Berkshire is very desirable, and is preferred by western breeders; but for a small breeder, or for family use, the pure Suffolks are far the most preferable.

Once procure the stock, and the farmer will never have cause to regret having exchanged his old for the new breed. G. F. Concklin. *Amenia, N. Y.*

Planting Peach Pits.

Messrs. L. Tucker & Son—I see you have an application for advice for planting peach stones. I have succeeded well by making a box 2 inches deep, not water-tight. Put in the box one inch below the level of the ground, and fill with stones—cover the pits with dirt one inch—don't let any snow collect over the box in winter; and when the sprouts begin to break ground in the spring, upset the box and select those that have started. Those that have not cracked themselves, will not grow if cracked, for they are not sufficiently frosted, but will often grow after the second winter's frost. Plant in rows, well manured, four feet apart, twelve to sixteen inches apart in the rows—well plowed and manured and well tended. A Subscriber. *Newark.*

Sorghum.

So various are the statements of those who have cultivated this plant, that no definite conclusions can be drawn. All represent it as growing from six to twelve feet in height, and yielding from one to two gallons of syrup to the square rod. Generally this syrup is said to have a peculiarity of taste, which makes it superior to good molasses for domestic use.

I have not seen any specimens of sugar made from it; and those who have given most attention to the subject, think that there is some chemical process necessary, before the syrup can be granulated into sugar. As a forage crop, I have seen no evidence of its being more valuable than the best varieties of sweet corn. P. *Essex Co., Mass., Nov.,* 1857.

Corn Husks for Under Beds.

Corn husks for this purpose, are, we think, too generally undervalued, for those who have used such beds for a number of years speak of them as light, cleanly, durable, and generally superior to under-beds made of any other material. The estimate of the value of one such bed made by a lady in a village, who had been brought up in a farm-house in which several such were in use, and who offered a farmer acquaintance five dollars for one well filled, was probably not an extravagant one. And if of this value, might not the labor of children, as also of men and women not more advantageously employed, be profitably used in taking care of that portion of the husks which are best fitted for this purpose?

Those who may be induced to make a trial of this mode of converting husks into most desirable articles of household comfort and convenience, should be particular about excluding all the outer and stiffer husks, allowing none to be put into the bed save the softer and smaller ones. Some strip them with a fork, while others, with whom we should agree, use them whole.

☞ The Vermont papers inform us that at the late Town Fair in Peacham in that State, "two hundred and fifty pairs of oxen, and other stock in proportion," were exhibited, and this, it is supposed, is the largest number of cattle ever exhibited at any one fair in that State.

Use of Salt in Potato Culture.

MESSRS. EDITORS — I now send you for publication in "The Cultivator" and "Country Gentleman," the following

REPORT OF EXPERIMENTS WITH POTATOES.—In the latter part of May last I planted my potatoes. I planted some dozen varieties. Some were kept separate, and other varieties were mixed up, some two to three kinds in a single hill, and ten to twelve kinds in a square of four rods. Some were large and some small; some were cut and others were planted whole. Some were planted with salt and some without salt. Some of these different varieties were among the most hardy, and many others were of the class most subject to the "rot."

Salt and lime were put in some hills, but salt alone more generally was used. The amount of salt used varies from two to four quarts per square rod, with or without lime, and either of which was scattered in the hill or sowed broadcast at the time of plantiug.

Aspects and Results.—In consequence of the near proximity of the lime and salt to the seed, many of the hills did not come up or sprout until from two to three weeks later than those potatoes which were planted at the same time, without lime or salt, and some few hills never vegetated. But when the others did come up and grow, they had a fresh, deep green appearance not common to the unsalted potatoes, that promised increased hardiness and vitality, recovered in some degree.

This aspect continued during the entire season of their growth. Therefore when the "blight" came it appeared upon potatoes not salted in all this region, from "three days" to three weeks *sooner* than it did upon those potatoes that had been cultivated with salt.

The foregoing may sound like a sweeping statement that needs qualifying. [It is now the 21st day of Oct., and some of my potato tops are still *green*, stalks, leaves and all, having stood four or five severe frosts!]

The "rust" *first appeared* upon my white varieties planted without salt, soon after inflorescence, and the rot followed about the 20th of August, and hardly left enough for seed

From the 1st to the 15th of September, all my other varieties except *one*, met the same fate as it respects the *rust* and dying of their tops, including the "Sand Lakes." The rot upon the last named variety, where salted, was not more than one in 500 to the sound ones. But the yield in the sound ones was not more than one-fourth the amount produced by the same variety last year on the same ground, (or 50 bushels per acre) I believe that had my "Sand Lakes" been kept separate from all other varieties, they would have stood the blight far better, from the fact that my toughest variety "Jenny Lind," wilted down soon after the "Sand Lakes," in a few instances, where a few hills or rows of them were planted among other varieties, by way of experiment.

But those Canadas (alias Jenny Lind) that had been assorted, and grown isolated from all other varieties, were those only, whose leaves and even stalks were not both dead and dry, even to the roots, by about the middle of September. The 39 hills of my Canadas that had their tops continue green up to the 21st day of October, when I dug them, occupied about one square rod of ground, and yielded 1¼ of a bushel, or about 200 bushels to the acre, at the same rate; and they contained three defective tubers only. [The "potato disease" is *highly infectious*, and may be spread or checked by a great variety of causes.]

A Fact.—"R. R." of the town of New-Hartford, Ct, planted early a single variety (Sand Lakes) in his garden, in a good, rich sandy soil, and sprinkled a teaspoonful of salt upon each hill as soon as the tops appeared above ground, and gave them clean culture, (three hoeings,) and now he has in his cellar some 20 bushels of smooth, ripe, mealy potatoes when boiled, as the result. The number of defective tubers found among them when dug, was very small. This gentleman thinks that had he sowed on, say one bushel of salt, before he plowed his garden, every tuber grown in it might have been sound. These 20 bushels grew upon less than 20 rods of ground, and their tops died down not until arriving at maturity.

Another Fact.—E. W., who lives but a stone's throw from the above named gentleman, this season has planted some 20 bushels of potatoes, upon about two acres of land, and has hardly got so much as the seed he planted, and wonders at the superior "good luck" of his neighbor R.

From all quarters reports come to us, too numerous to detail, in favor of he use of salt this season, for growing potatoes upon a dry or sandy soil. This shows up the *necessity* of underdraining wet soils, to secure the best results from the use of salt or any other fertilizer, in growing all crops whatsoever.

Now if any one has experimented with salt in growing potatoes on a dry or sandy soil *this* season, or at any time without *any* success, let the facts in any such case be given at once to the good public, and the modus operandi, with the name of the variety planted.

My experiments have all been made upon a small scale, for the *sole* purpose of evolving the TRUTH, that I might show the *cause*, or at least the *remedy* against the "potato disease"—that great "mystery of mysteries" of the present age—and establish in the minds of thinking men the great law of agricultural science, for the benefit of the present and all coming generations.

Improvement.—From the foregoing experiments, we derive the following axioms:

1. That salt as a fertilizer *ascends* from the soil.

2. All *strong* fertilizers should be put some inches *below*, never *above* the *point* of *early* vegetation.

3. By *reversing* this LAW, many crops are *injured* or *destroyed* every year.

4. Each variety should be preserved *pure*, by being planted *isolated* from every other variety of the same species.

5. No potato should be planted without first being *cut* into from two to twenty pieces.

6. Plant upon *dry* warm soil only.

7. Put from two to four *chits* in a hill.

8 Salt should be put as *low* in the soil as any other fertilizer; but the chits should be put near the natural surface.

9. Plant the chits in hills two and a half by three and a half feet apart.

10. Give each hill a teaspoonful of salt when the *dew is on*, as soon as the tops appear above ground, or before the first hoeing, and repeat the same at every successive hoeing.

11. If the theory of the "blight" be *correct*,—that a small worm, not discoverable by the unaided eye, is present through every stage of its progress,—the *timely use* of salt is no doubt the *grand remedy*.

12. Plant the genuine old-fashioned Blues, from which to obtain balls to renew and improve "the seed," which is now so often "rotten under his clod."

13. The potato, *no less* than the asparagus, is a *salt plant*.

14 No crop of potatoes should be raised without putting *in* or *on*, from five to twenty bushels of salt to the acre.

15. To use five bushels of salt to the acre, to raise a crop of potatoes *every year*, is better than to give *twenty* bushels of salt to the same once in *four years*.

16. We have observed the contagion transferred from dying tops to thrifty ones the past season, when growing *near* each other, and of different varieties, by the worms and insects which fed upon them; and for this,

if for no other reason the different varieties of potatoes should be grown far separated from each other, to avoid the contamination of the blight from this cause.

17. All potatoes, if *ripe* and dug in good weather, *will* be mealy and *crack* in boiling.

18. But few of my potatoes have this *essential* quality this season; but the Jennies having their stalks and leaves *green* into Oct., began to crack when boiled.

19. I pronounce this last named variety *best* for two reasons—1st. They are a hardy variety, and grow through the season—2d. They get *ripe* and *mealy* if grown upon good warm soil, and planted early.

20. To obtain new and improved varieties plant seed from the balls. First salt the subsoil, then add other manures, and cover the whole with from three to five inches of good earth; sow the seed in drills near the surface, from twelve to fifteen inches apart in squares, and cover lightly with earth.

21. When the sprouts appear above ground, sift a little fine salt upon them when the *dew is on*, as you would plaster, ashes or lime, and repeat the same at every hoeing.

22. No manure can be well prepared for the land without the use of salt, and no land can be well fitted for any crop without the *use* of salt more or less

23. As a fertilizer and vitalizer, salt has *no equal* in the kingdom of Nature.

24. Salt *ascends* from both the *earth* and *sea*, and thus becomes the *only true* expounder of all the phenomena of Nature.

25. Salt is the most indispensable of all fertilizers; and yet it requires more than *any* other fertilizer a *dry soil*, to *show up* its fertilizing power upon *one* year's trial. Salt, if used in any considerable *quantity*, should be put down to the sub-soil, or be turned under by the plow. Its *chilling effect* should *never* come in contact with *any seed* in the earth, before it vegetates. Rich, warm *earth*, is the only proper deposit of any seed *before* it germinates. Young plants of any kind, require only the "sincere milk" of rich, warm earth; but the "strong meat" of powerful fertilizers, should come in *contact* with plants, or their roots, only at the advancing stages of their growth, and become most abundant as they *near* maturity, and *feed* upon the *subsoil*.

26. Deep culture is the *true* philosophy of good husbandry; but it cannot *succeed well*, except it be upon a *dry soil*, and hence the frequent *necessity* of underdraining our lands to obtain the dry soil required.

27. If salt will aid the Canadas to grow through the the season, and keep their tops *green* until the 21st of Oct., as it has done in my field this season in spite of Jack Frost himself, and with less of the rot among them than was the case last year, upon the *same* ground, I am satisfied that no *one* thing that I have tried, has ever done my potato crop so much good as salt; and I am of the full belief that it *will*, if properly applied, *prevent* if not *cure* the "potato disease" entirely, at no distant day. [The *chief* difficulty lies in its *right* application.]

28. The white varieties rot the *worst*, because they are the *class* that have been subject for the *longest* period to *bad* cultivation. And as it must be a work of time to reclaim them, it is better to depend upon the most hardy varieties, with good culture, to preserve and restore the potato to its former hardiness and soundness.

Query?—In this latitude who has had potato tops, both the stalks and leaves, continue *green* this season beyond the 21st of Oct, as some of mine *did?* If there is such a case, we hope to see an account of the same in the "The Cultivator," giving the *name* of the variety, the mode of *culture*, and the quality of the *soil* it was grown upon.

The soil I cultivate is *moist*, resting upon a bed of clay or hard-pan, and needs underdraining. I have raised better cabbages, better onions, better beets, and better turnips, *this* season than *ever* before, and upon land *well* salted. One turnip weighed 9¼ lbs. My largest potato weighed but 17 oz, but it was a *sound one*. My carrot crop suffered from the *blight;* the season being so *wet*, the soil on which they grew became too cold and heavy to bring forward this crop without the aid of underdraining or a dry season. A more detailed account of the manner of cultivating my root crops would extend this communication beyond its proper limits, as it has accumulated already beyond my first intention. Should you favor us with its insertion in your valuable papers, we may try again. J. C. CLEVELAND. *Torringford, Ct., Oct.* 28, 1857.

Note.—If the "potato disease" *comes* and *goes* in the atmosphere, why do not the same varieties of this plant, with or without salt in their culture, in different fields and planted the *same day*, wilt down at the *same time*, instead of three days or three weeks apart, or *not at all* until the frosts of October *cut* them down? Is it not plain as the light of day can make it, that the legitimate effects of wrong culture, predispose the potato to become a prey to disease, from a great variety of other acting causes, *aside* from bad culture? Well has the poet said, and most timely and applicable in this case, as we humbly conceive:

> "*Where* grows? where grows it *not?*
> If vain our toil, we ought to blame
> The *culture*, *not* the soil!"

Doubtless there may be many conflicting opinions and theories, in regard to my assumption that salt is the CHIEF FERTILIZER. Nevertheless, if our theory is truth, it can but enhance the interest in that other important branch of Agricultural Science, the *necessity* of underdraining.

> Potatoes RIPE, ne'er rotted from disease,
> Those only rot, that never ripened be;
> To GROW or ROT, are Nature's firm decrees;
> Soon shall mankind this truth most plainly see,
> And harmony prevail when all agree. J. C. C.

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On Cutting Hay for Stock.

MESSRS. TUCKER & SON—Our crops being pretty much secured, it now becomes us to make the best of them. How is that to be done? I find some of your correspondents recommend cut feed, and some doubt the utility of cutting it. I believe in cutting feed for cattle at any time, and I know by my own experience that it is a great saving in fodder. I bought a cutting box two years since, and the first year I used it faithfully, and my cattle never did so well before. Towards the fall of the year, when pasturage got short, I used to give them half a bushel of cut hay each, wetted with a little sprinkling of salt and meal—the meal not more than a bushel and a half for 10 head a week, and I never made so much butter in a fall before, and my cows seem to relish this feed very much. This year I neglected to do it, and I fail in butter very much—but this year we have had more wet, and the grass has been more flashy, and therefore they more needed it. But my machine works hard for one man, and our boys do not like the business..

I have Stephen's Book of the Farm, and I find on page 135, second book, and plate 23d, the horse wheel, all lettered off, but no description given, though it seems to be simple of construction, and it appears to me to be just the thing the farmer wants, but where or whether they are manufactured now I cannot tell; therefore wish for information.

I keep a yoke of cattle, and at this time of year they have to work. If you give them a lock of dry hay they will show at once that they do not relish it, and as they feed but little in the night, when turned out on to the wet grass, they will fall away on this feed; but cut their hay fine, and sprinkle it with water and a very little meal and salt, and they will do well. This I know from my little experience. A WORKING FARMER. *Morris, N. Y.*

The Horse Wheel, described by Stephens is not to our knowledge in use in this country.

Winter Mulching Trees in the West.

V. Aldrich, of Bureau Co., Illinois, a skillful and successful cultivator, in a recent letter, gives tho following interesting and valuable statement of his experiments in relation to the preservation of trees through winter, which are especially worthy of the attention of western fruit men. Doubtless many if not all the failures of dwarf pear trees at the west, might have been prevented in the way stated by our correspondent. Caution will be required in all winter mulching not to provide a harbor for mice, by carefully avoiding much straw, and using nearly clear manure where these depredators are abundant—or else by first making a small steep mound of earth around each tree, and then placing the mulching outside this mound. Eds. Co. Gent

We had four acres of young nursery stock nearly or entirely killed out last winter; our ground had been cultivated with small double shovel plows, and left very level. The heavy thaw, accompanied with heavy rains last February, beat the dirt away from the young trees so much, that with the hard and sudden freezing, we think was the cause of their destruction. If the earth had been thrown up to the young trees in the fall with a mould-board plow, so as to raise a ridge around the trees, and left it quite low between, we think it would have been of great advantage.

Mulching, we find very great advantage from; last fall our dwarf pears in our garden were well mulched, except one row of ten, that was not convenient to get to with the wagon. Those mulched have made a fine growth, and most of them fruited well this season; those that were not mulched, blossomed and partly leaved out and then died. On examining them, we found they were all killed in the root, not the top; they were all Dwarfs on the Quince root. We mulched part of our orchard trees last fall in the same way. Those mulched have grown remarkably well this season, with dark luxuriant foliage; those not mulched were in considerable numbers killed in the root—showing that apple roots are not all of equal hardiness. These we speak about had been transplanted three years, the ground kept cultivated. We intend to mulch all of our orchard trees this fall, as well as all newly transplanted. Somo may ask, "What good can mulching do?" To such we would answer, that when the ground is once frozen under it, it remains so all winter, and will not freeze so deep as where there is none; that the roots of trees remain frozen and in one dormant state all winter, and lose none of their vitality. On the other hand, when not mulched, the frequent thawing and freezing in the winters we are subject to here in the west, is very injurious to the roots of fruit trees, and this will account for the death of many trees.

We hear many persons say they had fruit trees die, and could not find any cause for it—all looked well above ground. It is within the reach of all farmers to mulch their trees. How much more pleasure and profit they would reap by carting and placing their manure around their fruit trees, than as many do here in the west, let it lay round their stables year after year, and then say, "I can't raise an orchard, and we believe our climate is not adapted to fruit growing." We have many things to learn; and those that use energy and perseverance will succeed. Fruit trees will flourish here in the west where there can be a good crop of corn raised every year, wet or dry, and no mistake. Most people from the east undertake to raise fruit trees here with high heads as thoy do east in their native hilly and woody country. Here on our broad prairie they should be headed very low down, and not thinned any more than cross limbs cut out; when they fruit the top will open sufficient for light and air.

There is no one knows so well the lack of knowledge among people generally as does nurserymen—to hear so many questions asked about trees and fruit, you would think every boy a dozen years old ought to know. We were last week exhibiting fruit at our county fair—some old grey-hairs would come up to our grapes and ask, "What kind of *plums* are them?" "They are not plums, sir, they are grapes." "Wall, I never see any before; be they English grapes?" Another would want to know if they were *tame* grapes, &c., and so on from morning till night. If all those persons could be induced to take a good agricultural and horticultural paper, what a vast deal of improvement we might see in ten yoars. I do not wish to be understood that our people are all like those mentioned, but very far from it.

The Chufa or Earth Almond.

U. S. Patent Office, October 17, 1857.

Messrs. L. Tucker & Son—I observe in a late number of the "Country Gentleman," some remarks censuring this Office on its introduction of the Chufa, implying that it is identical with the Nut-grass. I beg leave to inform you that you are not alone in this conjecture, as communications have been received from various quarters, contending that they are both one and the same plant. But in every case where we have attempted to refute this error, the parties have been satisfied that they are widely different, both as regards their mode and period of growth as well as their economical value. In two instances, one in Maryland, the other in South Carolina, the two plants were cultivated side by side, with the object of determining their identity. In both cases they were admitted to be different,—the Chufa proving to be an annual, having been entirely killed by the frost, and the Nut-grass a perennial. Although the blades of the two plants very nearly resemble each other, their tubers are quite different in size and shape; those of the Chufa being oblong, and those of the Nut-grass round and even oblate in form. If you are not convinced with this explanation, I will send you samples of the tubers of both by mail.

I would call your attention to an error in your reference to the Patent Office Report for a description of the Chufa, as being for the year 1854 instead of 1855. At page xvii in the Report for 1854, it reads:

"In order to remove any prejudice which may exist in supposing that it (the Chufa) is identical with the creeping Cyperus, (*C. repens*,) or Nut-grass, which is found growing wild on the banks of streams, in pastures, and cultivated ground from New-York to Florida and Louisiana, I would state that the latter differs essentially from the Chufa in its height, as well as in the size, shape, and color of its spikelets. The roots also contain many fibrous branches, often terminating in edible tubers about the size of a pea, creeping continuously along with and just below the surface, and send up numerous suckers, which are regarded by Southern planters as a great scourge to their crops. The Chufa is quite different in this respect, only throwing up several stalks from one root like the common potato, but does not spread."

Allow me to inform you further that the Chufa is considered of such importance to the United States, that this Office has ordered one hundred bushels from Spain for distribution the coming season. It is found to thrive extremely well on meagre soils, particularly on light sandy land where few if any other crops will succeed. The blades serve as excellent forage for all grazing animals, and the tubers are eagerly rooted out of the ground by swine, which fatten upon them as readily as upon mast. Very respectfully,

D. Jay Browne.

Successful Culture of the Onion.

Luther Tucker & Son—M. D. B. inquires in the Country Gentleman of Oct. 1st, for information on the culture of the onion. I will try and give it. I commenced the business six or seven years ago, and have grown them in considerable quantities ever since, with first-rate success, having raised as high as fourteen hundred bushels per acre, though the general average is from eight hundred to one thousand.

My soil is swamp muck, mixed with clay or upland to give it solidity, and enable it to retain moisture, so that the young onions will not be burned up by heat. My plan is this. In the fall after the crop is off, I throw the ground into beds of three or four rods in width, by back-furrowing with two horses, plowing to the depth of eight inches or more—(the deeper the better if the soil will permit.) Then cart on from twenty-five to thirty loads of well decomposed manure per acre, spreading it evenly from the wagon on the plowed surface, and let it lay till spring. As soon as the frost is out and the ground dry enough to work, if the manure is rather coarse I plow it again with one horse—harrow lightly, level down, and sow in fourteen inch drills, from four to five lbs. seed per acre, using hand sower, and either marking the rows with a four-tooth marker, or running the machine along a line. After the seed is in, I pass the marker lengthwise the rows, bottom side up, and finish up with the hand roller.

The after culture depends almost entirely on the weeds, for they must be kept out whether few or many. For cleaning between the rows I use the push or scuffle hoe, which any blacksmith can make by the following directions: Take, say an old shovel blade, and cut off a piece ten inches long by two wide, and bring both sides to an edge, working from the upper part of your hoe so as to have the lower side flat, and rivet on to it a pronged iron like fork tines, to attach the handle, bending the tines so that with the handle in the hand in a proper position for working, your hoe will set perfectly flat on the ground, and you have a tool as far ahead of the clumsy things you get at the stores as could be desired, and with which when sharp, a man can take out every weed to within an inch of the rows, over from half an acre to an acre a day. Pass the hoe through as soon as the rows can be seen, if there is any weeds, and then again before you commence weeding, if necessary, and keep it going as often as the weeds appear; for if they once get matted, it will take something besides hard swearing to subdue them.

The rest of the weeds must be taken out by hand before they get much size the first time. Afterwards they may be allowed to get larger, as they pull easier, and rather benefit the crop by removing the dirt from the onions. Top dress with ashes after the second weeding, sowing broadcast thirty bushels to the acre.

I grow two kinds—one early, the other late; both red, and good yielders—getting my seed when I do not raise it myself, from Comstock, Ferre & Co., Weathersfield, Conn., which never fails to come up.

If M. D. B. will follow the above directions, I will warrant him a good crop—but he must not expect, if his ground is upland, so large a yield, as no soil can compete with our bog meadows.

One word about "special manures." I have used guano and poudrette, and am sorry to say they are far behind barn-yard manure—in fact the more I use special manure, the more I am convinced that we must look to the barn-yard and pig-sty for food for our crops If one-half the money expended for advertised humbugs was applied to enlarging the manure heaps, farmers would be better off, and speculators on their credulity get less of their hard earned cash. A Subscriber. *Chester, N. Y.*

Preparations for Winter.

Even thoughtful, careful, provident men, will sometimes forget some of the several "fixings" which are usually needed to be made about every house, cellar, barn, stable, &c., before the setting in of winter. We recollect one such man, who having other business to attend to besides that of his farm, was overtaken by winter for several years before he had attended to fixing up all of the jobs and chores which needed to be done. This neglect happened from forgetfulness, or from not thinking of the several matters at the right time. After finishing the more urgent portions of fall work, he would say to his hands or to his family, after enumerating a number of things that needed to be done or attended to before winter,—"Now don't let us forget any of these." But by being gone a good deal from home, it came to pass that some jobs were forgotten by his help and family; and even when but little absent, these things were neglected still. Annoyed by these neglects, he adopted the plan of jotting down on a page of his memorandum, a list of the several matters which needed to be attended to, setting them down one after another, day by day, as they happened to occur to him. This plan proved much more satisfactory than the usual method of trusting all such things to memory; and we have mentioned the particulars of the case with some details, because we have hoped to make those whose unfaithfulness of memory has proved productive of similar results and similar annoyances, say to themselves, "That's just like me," or "That's my case exactly," and be the more ready to make a trial of our friend's method of improving his memory.

The same method might be adopted with advantage during the winter, in regard to work, experiments, and everything else which happens to be planned or projected for the coming season, during the long evenings and the comparative leisure of winter. If not jotted down, several things which were thought of during the winter will be forgotten, or neglected in the hurry of spring work. A minute or two will serve to make a memorandum of any work, job, experiment, or fixing of any kind, which may be planned or projected for the coming season, and the minute thus employed may save hours of vain regret or distressing annoyance, or serious loss. Let those whose memories have sometimes served them but poorly, try this plan.

While preparing either for your memory or your memorandum, a list of jobs to be done this fall or before winter, do not forget to consider what should be done if the roof has a leaky spot, or if frost finds its way into the cellar, or if there are any loose boards about barn or sheds, or if your shelter for your stock is not as good as it ought to be. All these and much more should pass in review before the mind.

Protection from Bloody Murrain.

Prevention better than Cure when Cure is impossible.—Having spent thirty years in Wilmington, Loraine Co., Ohio, I learned by salting cattle regularly twice a week on the ground, in the same place, that they would lick out a perfect dish in that clay soil, and entirely prevent the bloody murrain, a disease which I am prepared to show it is impossible to cure. Judson Wadsworth. *West Winsted, Ct.*

Gapes in Young Turkies.

Editors Co. Gent.—In No. 235 of your paper, date July 2, some one inquires for a cure for gapes in turkies. The following I have found an effectual remedy: Give a few drops of sweet or lamp oil, and follow with a strong solution of alum. Repeat the dose if necessary. One who has Tried it. *Racine, Wis.*

Letter from Canada.

CONTRAST LAST SEASON AND THE PRESENT—DRAINAGE—MANURES, MANURE-TANK AND DUNG-PIT.

The harvesting is now over, with the exception of roots. The present season, in Lanark county, Canada West, has differed from the last, which was dry, while the present has been favored with regular rains—occasionally heavy. The hay last year was not plentiful, and prices rose to $20 a ton; the present price is about $8. Last season from fifteen to eighteen bushels of wheat was an average crop. It ripened early, and although the straw was short, the grain was excellent, and there was but little refuse grain. This season the straw is much heavier—there is about the same average of good grain, and much refuse grain. On thrashing out, the yield has been less than was anticipated and the grain is not so bright in color.

Last season, therefore, the cultivated acres gave out their power in forming seed, and drew strongly upon the phosphoric acid in contact with lime, derived in this region chiefly from the manures of the barn-yard, raw bones, small quantities of phosphorite and a few other stones, ashes, straw and such like. For the present the Lanark farmer has not access to the markets where he can procure bone-dust, guano, oil-cakes, &c., at rates which would be remunerative. A railroad is now building, and in a year or two it will be a question with him as to how far he may go in purchasing these articles. My present impression is, that a small proportion of them used for enriching or forcing qualities may be profitably used in combination with the home produced manures, but that he will have to learn the art of producing the best he can find on his own premises, and rely on it for his supply.

Unless the farmer therefore replenished his seed producing land of last season with active manures, he should expect to find his return this year consist in a more plentiful production of straw and leaves than last season, and not a corresponding production of plump, heavy grain. The rains, containing ammonia, and the necessary elements to plants found in water, have of course contributed to the productiveness of the present harvest. But deficient drainage and imperfect tillage, have had their counteracting influences.

Too many farmers are still impressed with the idea that drainage is only useful in low wet grounds, overlooking the advantage it confers in admitting the air with its beneficial elements into the soil,—in carrying off the rain and other waters after its benefits are conferred, and in keeping the land free and sweet to the plant. The same good effects are in a measure produced by good tillage. In a dry season like the last, we require these agencies, and much more so in a rainy or wet season like the present. They both aid in bringing the food contained in the air, the moisture and the soil, to the roots of the plant in a wholesome and effective state for use.

A number of your correspondents treat on the subject of manures, and afford to your readers what may be designated the conclusions derived from a miscellaneous experience The art of manufacturing food for the sustenance of the various plants we raise, does not appear to be reduced to any thing like a system that can be carried into general use. A few establishments produce and sell specific and artificial manures, all of which contain more or less valuable forcing ingredients. Where they are easily accessible to the farmer, it is worth his while, to ascertain chemically and by analysis, their value, and if afforded at rates which he can pay with profit, he will be relieved from one of the sources of difficulty to the farmer, who wishes to conduct his business successfully and profitably.

It is laid down by the best of authority, that one of the primary and most important tasks which the farmer should impose upon himself, is the preparation of suitable conveniences for the preservation and manufacture of manure. These embrace the dung-pit, with its attendant draining-tank. It would extend this letter to an improper length to include here the directions which are given as to the mode of construction, plan, and manner of using the pit, and the processes observed in the preparation and preserving of manure. Having called attention to the matter, perhaps some other pen of leisure will be good enough to take up the subject and give brief directions in these matters. More anon. W. O. BUELL. *Lanark Co, C. W., Oct*, 1857.

Keeping Roots.

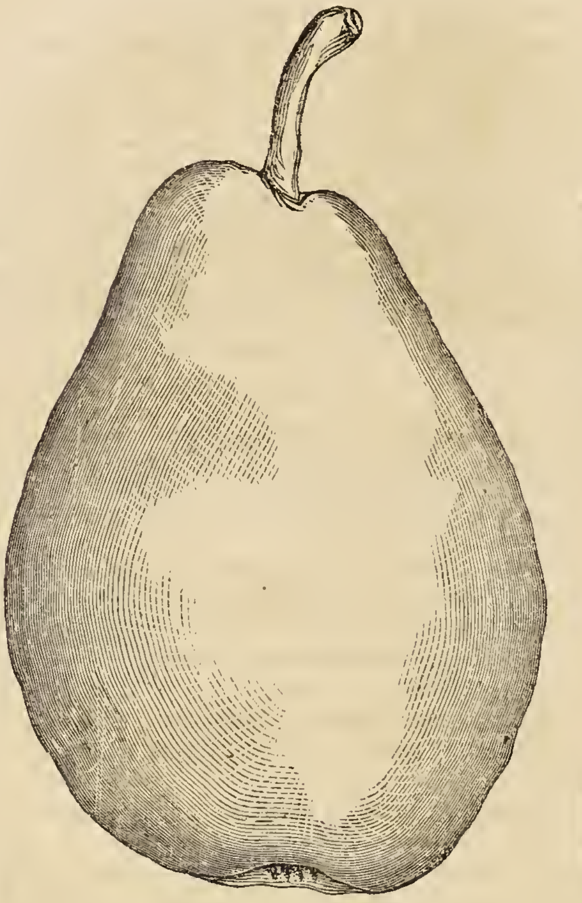
MESSRS EDITORS—Will you give myself and other readers of the Co. Gent., a description of the easiest and best way of "*taking care*" of such roots as Mangle Wurtzle, Carrots, &c, and oblige S. B. C. *Yonkers, N. Y.*

The "best and easiest" way depends on the facilities already at hand. If there is a good and spacious root cellar which admits filling by dumping the cart load of roots down through a shute—that is the easiest, and is as good as any. The roots should be clean, or much dirt will thus be thrown in the cellar. All the root bins, (unless the cellar is very dry,) should have a bottom made like a wooden grate, six inches or more above the ground, to admit some ventilation and prevent rotting. A cellar under a barn is sometimes too cold, the floor above not being sufficient guard from the frost, the upper apartments, as in a dwelling, not being kept warm by artificial heat. It is generally best, therefore, after the roots are stored in the barn cellar, to place upon them two or three feet of straw—which may be best done by so constructing the barn that the refuse straw from thrashing may be deposited upon the roots, or a portion of it.

If no cellar is to be had, the roots should be placed in long heaps, say three feet high, and covered with straw and then with earth. If straw is scarce, and only two or three inches in thickness, (packed) can be applied, the earth should be nearly a foot thick to exclude frost But it is much better to have more straw, and if it is a foot thick, only 2 or 3 inches of earth will be required. Ventilators, consisting of holes in the top, made by a crowbar, and partly filled by wisps of straw, should be placed every few feet. If the subsoil be porous, so that no water ever accumulates in it, a trench may be dug a few feet wide and a foot or two deep for the roots —this will render covering easier, and better protect from freezing. Or, a trench 6 to 10 feet wide may be dug in such soil, and three or four feet deep, covered with a slab roof, and a few inches of turf. This will hold a great quantity, and the roots will be very accessible.

To Drive Away Rats.

Some years since a correspondent of the Boston Cultivator recommended potash for this purpose. The rats troubled him very much, so that he felt justified in resorting to extreme measures to effect their expulsion from his premises. He pounded up pot ash and strewed it around their holes, and rubbed some under the boards and on the sides where they came through. The next night he heard a squealing among them, which he supposed was from the caustic nature of the potash that got among their hair, or on their bare feet. They disappeared, and for a long time he was exempt from any further annoyance.



The Ontario Pear.

We have received specimens of this fine new native variety from W. T. & E. Smith of Geneva, N. Y. It is a vigorous and productive sort, and promises to be valuable for market. The quality is "good" or "very good"—not quite equal to the Virgalieu or Doyenné in its high aromatic flavor, but well grown and well ripened specimens are not much inferior. In form it considerably resembles the Bartlett, but is of smaller size, and we are informed it is a seedling of the Canandaigua; if we were to guess its origin, without any knowledge except from the specimens, we should think it was a cross from the Bartlett and Doyenné.

Fruit medium or rather large, oblong-pyriform, sometimes very faintly and obscurely ribbed, and generally somewhat irregular. Skin pale yellow, with numerous very small dots. Stalk about an inch long, mostly curved, with a fleshy ring at base, and inserted in an irregular depression. Calyx open or partly closed, in a wrinkled basin. Flesh white, buttery, becoming melting, with a rather sweet, mild, pleasant agreeable flavor. Ripens a little before mid-autumn.

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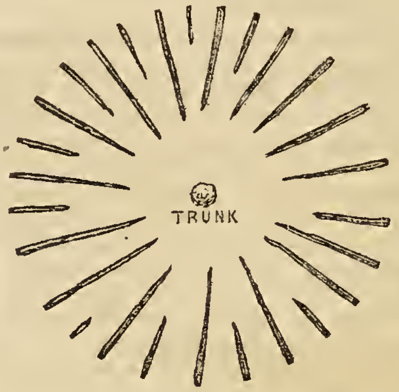
AN ALBANY HORSE.—"Henry Clay," owned by Messrs. Rogers & Co. of this city, received the first prize at the Springfield National Show, in the class of stallions over seven, over the famous "Old Morroll" horse which took the second. John A Hemmenway's "Black Hawk, Jr.," took the first prize in the class of stallions under seven and over four years old. The second prize was given to a fine horse, "Columbus, Jr," owned in Orwell, Vt. There were over 20 entries in this class, and it is no small honor to carry off either of the three prizes. "Green Mountain, Jr.," owned in Montpelier, Vt., took the third prize.

Renovating an Old Pear Tree.

MESSRS. TUCKER & SON—Can you or any of your readers, tell me how to give new life and vigor to an old pear tree? It does not seem to be affected with the *blight;* the trunk is sound and appears healthy, and the fruit is perfect and of good quality. But there are hardly any young shoots and no thrifty ones, and the old limbs are dying and dropping off, and unless something is done for it, it must soon be among the things that were. I am anxious to make an effort to save it, as it is one of the *first settlers*, and the "oldest inhabitant" remembers it in his youth as a thrifty bearing tree. E. J. P. *Tanglewood, Oct.*, 1857.

We know of nothing better than *manuring*—which may be performed by digging narrow radiating trenches from within a few feet of the trunk, directly from it—this will prevent cutting many of the roots. The annexed diagram (Fig. 1,) will show the position of these trenches.—These may then be filled with a *compost*, made of turf, stable manure, ashes, and perhaps a little bone manure—the turf to be the chief constituent, say one-hal or two-thirds—and the ashes say one-thirtieth. The bone manure is not essential, as its constituent parts are in common manure in small quantities. If this is done in autumn, the roots will be prepared to penetrate it early in spring, and if the tree is not past recovery, it may make a new push. The roots probably extend as far each way as the height of the tree, and the trenches should extend about as far. They need not be cut very near the tree, as the roots are all large there, and would be more likely to be injured and would be little benefitted. The trenches should be only the width of a spade, and may be two to four feet apart



(Fig. 1.)

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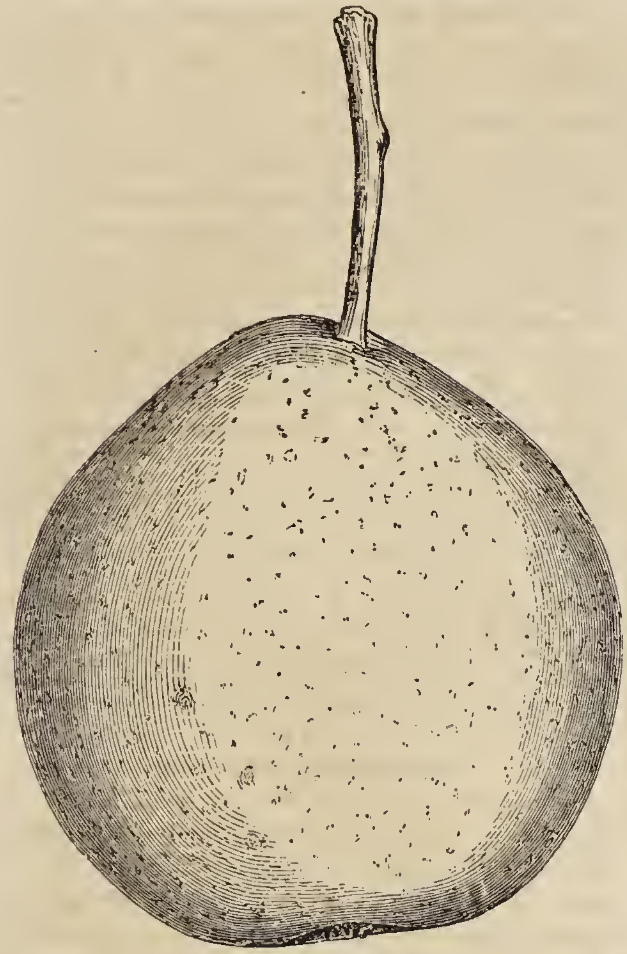
How to Make Lard Candles.

MESSRS. EDITORS — Having been the recipient of many favors through the columns of your invaluable publications, I propose as far as in me lies, to cancel the obligations already incurred, and as the first installment, I shall offer a recipe for making hard, durable and clear-burning candles of lard. The manufacture of lard candles is carried on to a considerable extent in some of the Western States, particularly Wisconsin, and being monopolized by the few has proved very lucrative. The following is the recipe in to-to To every 8 lbs. of lard, add one ounce nitric acid; and the manner of making is as follows: Having carefully weighed your lard, place it over a slow fire, or at least merely melt it; then add the acid, and mould the same as tallow, and you have a clear, beautiful candle.

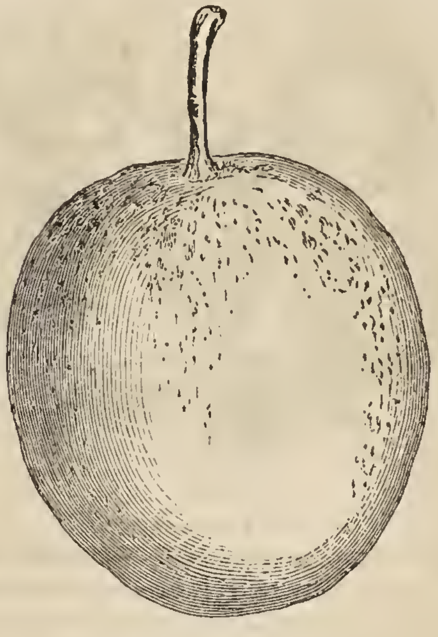
In order to make them resemble bona-fide tallow candles, you have only to add a small proportion of pure bees-wax. J. A. ROBINSON. *Belcher, N. Y.*



Des Nonnes Pear.

Of this pear, described by Charles Downing as *Beurré de Brignais*, we have been furnished fine specimens by THORP, SMITH & HANCHETT of Syracuse, who have fruited it for several years. Should it prove *always fair*, it will undoubtedly be a great acquisition. They have stated that it is a vigorous grower, good bearer, and that it succeeds finely on the quince. We know of no pear that, all things considered, has a more delicious flavor than the specimens sent us. It is exceedingly delicate and melting, and has just enough of that peculiar perfume of the Seckel, and the sweetness of the Washington, to make it eminently agreeable We have never tasted a Belle Lucrative better. Charles Downing says that it has not a high flavor—hence we infer that it is variable, and if so, its value must be greatly lessened by this characteristic.

In size, it is medium—form roundish turbinate, obtuse. Skin greenish yellow, becoming a clear yellow, with numerous greyish brown dots—sometimes with a faint tinge of red towards the sun. Stalk an inch and a half long, moderately slender, set in a slight depression. Calyx rather small, often closed, in a small, wrinkled basin. Flesh juicy, and exceedingly melting when at perfection, very sweet, perfumed, and with an exquisite flavor—"best." Ripens rather before mid-autumn. It is probable that its extreme delicacy requires that it should not only be well grown and ripened, to attain its highest perfection, but that the precise point of maturity should be chosen when it shall have attained fully its fine melting texture.



The Fulton Plum.

Fruit rather large, oval, rounded and full, suture a a mere line, skin a rich yellow, mottled, dotted, and blotched with red towards the stem. Stem three-fourths of an inch long, in a narrow, distinct cavity. Flesh yellow, juicy, with a very rich, high vinous flavor, adhering to the stone. "Very good." Ripens late and hangs long.

The specimens from which the drawing was taken were furnished by JOHN WILSON of Albany. Charles Downing says the origin of this plum is uncertain—that it was found at Johnstown, Fulton Co., N. Y. The tree is said to be vigorous and productive, and it must prove one of the most valuable new sorts.

Cider Champagne Wine.

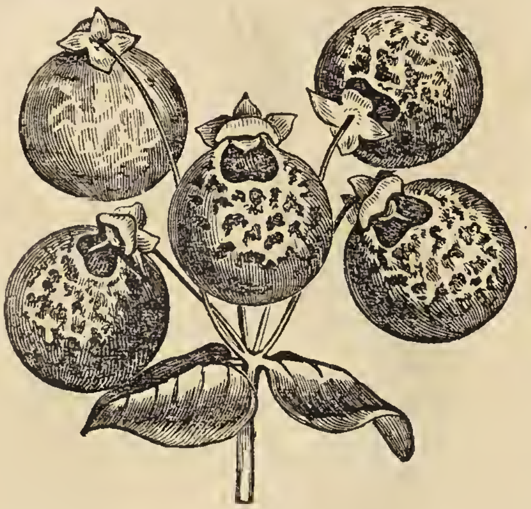
MESSRS. EDITORS—I see in your paper an inquiry, "How to make Cider like Champagne Wine." I think I can give it an answer, as I have some experience on the subject.

Take some late apples, well ripe; press them into cider; boil it in a copper kettle for about ten minutes; skim it well while it boils; then barrel it like common cider, keeping the barrel full. At the end of the winter, before the second fermentation has begun, get enough strong bottles, as strong as possible, large or small—old porter bottles will do as well as any—and bottle all your cider, leaving a small space between the cider and the cork — in a long-necked bottle, at least 2 1-2 or 3 inches—tie a good string over the cork, and lay them down on a shelf in a cool cellar.

Cider treated in this way, will make a splendid drink in the course of the summer, sparkling like champagne wine. I don't know how long it will keep, as we always got through our supply in the course of the year. A. CHAVANNESS. *Knoxville, Tenn.*

Keeping Cider Sweet.

A pint of mustard seed, put in a barrel of cider, will preserve it sweet for several months. I have drank fall cider in the month of May, which was kept sweet by this means. J. W. L.



The Calceolaria.

This exceedingly pretty green-house plant, is easily raised from seed in pots. It is remarkable for the varieties in the color of its flowers, produced by successive sowings, which renders it one of the most beautiful ornaments of the green-house.

New American Grapes—The Louisa.

[The following extract from a private letter from Thomas M. Harvey, of Chester county, Pennsylvania, dated 10th of 9 mo., 1857, in relation to some of the new American grapes, cannot fail to be interesting to all cultivators of this valuable table fruit. Our correspondent is an intelligent and enthusiastic pomologist, and has on trial on his own grounds, and occupying ten acres, over 400 varieties of the apple, 500 of the pear, over 100 each of the peach and cherry, 75 of the strawberry, 35 of native grapes, &c.—his object is to select the best, after thorough trial, from this vast multitude. Eds. Co. Gent]

Knowing that J. B. Garber of Columbia, Pa., and Saml Miller of Lebanon, Pa., were equally, if not more so, with myself interested in native grapes, I made them a visit last week to see their progress.

I found friend Garber quite a pioneer—having many of the new ones in fruit, and very many seedlings under way, raised from seed sent him from various sections of the Union, but chiefly from the South and West. Contrary to my expectations, I found the grapes from the South quite hardy, while the *Canadian Chief* from the North, is a failure with us all. The plants started well in the spring, but when hot, dry weather set in, the foliage fell a victim to mildew, and finally the plants are all gone.

Friend Miller is a younger man, and his vines are generally not so far advanced; but he possesses energy and ambition to carry him through with his experiments with all the natives of any merit. He has a seedling (noticed in the Horticulturist of last year, page 484,) that I think worthy of a general trial. I found the original vine growing in his door-yard, in the sod, without any prepared border, and two cherry trees growing near by to rob part of the native nourishment. I was disposed to give the fruit a hard test, and, if possible, not to set it above our old Isabella and Catawba The latter was running on the same trellis, but, as a common thing with us, was badly mildewed; while the *Louisa*, as he calls his seedling, was loaded with fine bunches, entirely free from mildew, rot, or any blemish. I next asked for Isabella, to compare it with—was shown to his vine, but the bunches were poor, and the fruit unripe, and not fit to taste. I then asked if he could not find better Isabellas at a neighbor's or in town. He sent "John" in haste to ask "some bunches of the very best they could procure." When received, they were fine for that grape of this season, but still they were not so large nor good as the Louisa, and the probability is, they had much better culture. I brought away with me several bunches each of the Louisa and the Isabella, and all who have tasted, pronounce the Louisa the best. I am thus particular, as I think it a matter of some importance to introduce a grape every way superior to the Isabella, when that variety fails so much of late with us by rotting. I have it home with me now, and compare it with the best Isabellas I can find, and still Louisa comes out the best—so say all who taste it.

While many of our new varieties are coming out miserable Fox grapes, I would like to say from this section, that the *Diana* is quite an acquisition, standing all the wet and cold that it can be exposed to, and the fruit comes out very fine—without blemish. And although the Concord is of foxy parentage, it is quite refined and improved, so that we consider it a valuable acquisition. The *Delaware* is the most refined grape we have tasted here; the *Cassady* is a nice white grape, and the *Garrigues* is equal, if not superior, to the Isabella. On the same trellis this year Garrigues was fine and perfect, while Isabella nearly, if not all, rotted.

Good Tallow Candles.

In the Cultivator I have seen the use of rosin suggested as an article for hardening candles. My mother has had a little experience in it, and suggests that it should be used very sparingly, if at all. Although her candles burned very brilliantly, yet the rosin seemed to generate too much heat, causing the candle to run down, and of course to waste away very rapidly.

We use alum for this purpose; also beeswax if we can get it, and think it both economical and gives a clear light. In dipping candles, we add the beeswax when partly done, that it may form a coating on the outside. J. B. *Chatham Center, O.*

Inquiries about Butter Making.

Messrs. Editors—Being a new subscriber to your paper, as well as a new beginner in farming, I wish you or some of your correspondents to answer the following questions, which have doubtless been answered a dozen times already in your columns, viz:

What is the proper temperature for cream to be in at the time of churning?

Is there any "aromatic flavor" or anything else which it is desirable to retain, washed from butter by washing in clear spring water?

What is the proper depth to set milk in pans to obtain the greatest amount of cream?

I have often read that milk should be skimmed before it sours, but I find the cream is thicker to let it stand till the milk thickens, and it will *roll* off from the top. Will it not make more butter, and is it not of as good quality?

With a good churn to go by wind or water, would it not be more profitable to churn the *milk* than to set it for cream, in a dairy of ten cows?

I have a cow which occasionally (say once or twice a month) gives curdled milk from two of her teats. What will cure her? A Morgan Farmer. *Iowa.*

We shall be pleased to hear from any of our readers in answer to the above inquiries.

Preparation of Feed for Cattle and Horses.

Messrs. Tucker & Son—I have read Mr. Colburn's partial reply to the inquiry as to the utility and economy of cutting hay, straw, &c., for stock, and agree with him as to the economy of cutting feed for horses, but not as to corn and rye being the best kind of meal for them. I propose, therefore, to give you a little of my experience in feeding horses and cattle on cut feed.

I have cut feed for two pair of horses for the last ten years, and some part of that time more. I use my horses in the lumber business, keeping them in the barn the whole year, and feeding cut feed the whole time. I have tried feeding one-third corn meal, two-thirds bran—also corn and rye after Mr. Colburn's mode—and oats and rye, two-thirds oats, one-third rye, and corn clear from any other grain; also rye, clear, as well as oats, and have come to the conclusion that first and best of all is the mixture of oats and rye. My reason is, first, that it is less liable to injure a horse. You may feed him all he will eat, without any fear of colic or founder. Corn meal and rye is a dangerous feed in the summer season, unless used by a careful horseman. As to the corn and bran, horses are very subject to the colic with it; at least that is my experience with it; but I work my horses very hard in the lumber business, and have to feed at least double the amount Mr. C. speaks of. I suppose he had reference to common farm horses, which would be sufficient, I think; and horses on a farm are not so liable to disease from over-feeding, as teams in the lumber business. I use a little salt in every mess I feed—a small handful to a team; and as to using warm water to mix feed with in the winter, it is not necessary in my judgment; the feed will not freeze in the manger while he is feeding.

I agree with Mr. Colburn in the use of good oat straw, but rye straw I think is much better. I frequently mix half hay and oat or rye straw, and my horses do well on it. I have one team whose combined weight was, when weighed last, 2,950 pounds—one was weighed alone since, and weighed 1,500. This team usually travels 24 miles per day, and their average load of lumber, green hemlock from the saw, is from 1,600 to 2,200 feet, supposed to weigh from four to six tons; and they have lived altogether on cut feed as above described. The distance of travel is twelve miles loaded, and the return, making twenty-four in all.

My experience on the utility of cut feed for cattle, has been the same length of time as with horses. I keep two yoke of oxen in the barn the year round, as I do my horses, and work them every day that it is reasonable for cattle to work, and feed them cut feed altogether, and I like corn and oats ground for oxen the best—about one-third corn and two-thirds oats, ground fine, *not chopped*, and feed according to my work. If the work is severe, feed the more. I cut straw altogether for my oxen, and they do well. In the spring I cut green fodder a little—rye as soon as it is headed out, and green corn fodder as soon as I can get it.

My experience is the same with other farm stock. I cut all my feed for common farm stock, and my mode varies with the different kinds. To my cows I give a little bran or meal; but lately I live near a distillery, and draw still slops and feed it to my cows in this wise: Cut the straw and stalks, and give each one a basketful in her trough or manger; then pour about two common pailfuls of slops on it, and mix. In this way your cows will come out right in spring on that quantity three times per day, and the women will not be complaining that their cows give no milk If you do not live convenient to a distillery, a little meal, say 4 quarts oats and corn, three times per day, will tell the same story. I have kept young stock through in good order, on straw, wet with a very weak salt brine only.

I would add a little in regard to the length of the straw and hay to be cut. For horses I prefer three-fourths of an inch in length to any other; for cattle, not shorter than one inch and a quarter, or one and a half I like the best. For cattle there is one difficulty I have to contend with in cutting feed, and that is the cutting machines are all so poor that it is difficult to keep them in order for cutting feed. I have tried a great many of the different kinds, and do not get a first rate machine as yet. I am using two at the present time called the Eagle Cutter, manufactured at the Buffalo Agricultural Works, Buffalo, to which I give the preference over any that I have ever used. I saw one on the Fair ground at Buffalo at the late State Fair, that suited me, although too heavy for common hand use, and think it the best I ever saw. The description of it I will not undertake, but leave that to the inventor, or some other person. I must conclude, by hoping that some other person will give a better and more profitable experience in the matter of cutting fodder for horses and cattle. Wm. Winspear. *Winspear, Oct.* 13.

Preparation of Tripe.

Messrs. Editors—I am aware that tripe is a subject which few persons have much sympathy with, or relish for; and as to the idea of using it as an article of food, that is utterly repugnant to their tastes; yet the idea of it being unfit for food, I think is wholly imaginary, for the individuals who discard it have no compunctions about eating a piece of boiled liver—the heart when boiled, and served up cold, or made into mince pies is excellent—and a cold tongue is considered a choice morsel. The reason why tripe is generally rejected, is because it is one of the inner parts of the beef; and the filthy manner in which it is often treated, is enough to make it repulsive to any one. Yet most persons, when a dish of tripe that has been carefully cured and well cooked, is set before them, eat it and call it excellent. The same objection might be made against the other parts mentioned, and with equal propriety. I contend that if proper care is used in preparing and cooking tripe, it is just as clean, healthy and nourishing, as any other part of the beef. It is presumed that most farmers who fat and kill their own beef, throw away the tripe because of their ignorance of how to clean and prepare it.

The following method of cleaning and preparing tripe I have tried successfully, and prefer to any other way that I know of. When the paunch is taken from the beef, care is used to keep it clean, and as soon as it is emptied, it is washed in clean water till it is clean; if it is cold weather, it is put into warm water and soaked a short time, when it is cleansed in this way. Have a kettle of boiling water ready; take the tripe and cut it into pieces small enough to handle conveniently; then take a piece and hold it in the water till it is scalded so that the skin will start, when it should be laid on a table and scraped with a knife till it is thoroughly clean; proceed in this way till it is all cleaned. It should then be put into cold water and remain a week, the water being changed every day.

It should then be boiled till it is so tender that a straw can be run through it easily. While it is boiling, a small quantity of saleratus should be put into the water, for the purpose of sweetening it and to make it tender. After it is cooked, it can be pickled to suit the taste of those who use it.

In this way it may be prepared in a way, which, if suitably cooked, will make a dish of food equal in every respect to any part of the beef. C. T. Alvord. *Wilmington.*

Preparation of Feed for Cattle, &c.

The economy of cutting hay, straw and cornstalks for cattle, is a question I thought long since settled, at least by our eastern farmers, where those three articles are always marketable at remunerative prices, to those whose land does not require manure. Those who wish to make manure, will find it cheaper to market them in their own stables. It is better than purchasing special manures. To western farmers, who do not move their manure, of course the case is different. Every farmer knows what an annoyance cornstalks are in a manure heap, when thrown there after the leaves have been eaten off. Then, when on the ground with the other manure, they cannot be plowed in, and in using a seed-drill or harrrow you draw them again on top. Keeping them clear of the drill and harrow will consume more time than would pay for a corn-stalk cutter. My practice is to cut them. After the cattle have fed on them, throw them into a heap, and throw some horse manure on them; then another layer of the cut stalks and manure. They will heat and decompose directly. Aside from this, I have proved cut feed better for all cattle, and decidedly the cheapest.

Having kept from twenty to thirty fresh cows in winter, I tried a good many experiments to see which was best, but having mislaid my daily journal for the year in which I made the experiments, I cannot give you the particulars; the result, however, was that since then I have adopted the following plan of feeding:

One part cut cornstalks, one part cut straw, and one part cut clover hay, (saved in the manner I recommended in a previous number.) These I throw into a large bin or trough, mixing all well up together, sprinkling a sufficiency of water on to dampen them, and from two to four quarts of shorts per head. This allowance must be regulated according to the quality of your feed —ground corn and cob, ground rye, ground oats and wheat bran—I allow with this, half a bushel of boiled roots per head, either mangel wurtzel or ruta baga, and to every three bushels of roots one bushel of carrots. This I find gives the milk a good color, also the butter. When the roots are out, I use oil meal, a sufficient quantity to allow for the roots, (roots are the cheapest.) In boiling roots, care must be taken not to boil them too soft; let them boil until you can leave the impression of your finger on them; before boiling, cut them with a root-cutter or chop with a spade. This mixture I allow to stand twelve hours before feeding.

In feeding, I give those that give most milk the most feed, all cattle not eating alike; the object is to keep them in one condition while they are giving milk. If you give more than is required to produce milk, it will go to flesh and stop the milk. When they fail in their milk, and your object is to fatten them, keep increasing your feed as your animal increases in flesh. If you intend keeping for calving, reduce your feed so that you keep her in sufficient flesh for that purpose.

Middle of the day I give them clover hay in the stalls, and oat straw at night, sometimes changing to oat straw at noon and clover hay at night. In fattening steers and oxen I pursue the same system, except in the quantity given, and middle of the day I give them from one to two bushels of ruta bagas, as they are better for flesh than mangel wurtzels, and mangel wurtzels are much better for milk than ruta bagas. I give them all the oat straw and cornstalks they will eat. Over-feeding must be avoided, as that is as injurious as half-starving. A good rule is, keep them hungry. When you feed them, see that they eat with a *will*—if not, take part of it from them, and give them less another time, until you get them on a good appetite. As to the exact quantity of feed each animal should have, it is a thing no one can give directions for. I have never had one pair of cattle eat alike. Every man must be his own judge in this, to feed to advantage to himself. If profit is no object, why it matters not how you feed them.

Dry cattle in winter, I keep on cut hay, cornstalks, and straw, mixed with cut roots, (raw,) never using corn if I have got roots; if I have not roots, I sprinkle the cut feed with corn In cutting fodder for cattle, let it be at least one inch long—if shorter it injures them. In cutting for horses and mules, it should be cut short, say quarter of an inch, mixed with ground rye, oats and corn. This is good feed; but when at hard work they should have oats middle of the day, (half a peck. Crushed oats are a great saving to the oat-bin, and much better for horses than whole oats. It takes them less time to feed—consequently gives them more time for rest—old horses particularly, as they will swallow the grain without chewing, which can be seen in the manure. It is the general practice in Europe to feed crushed oats. I have tried to get an oat-crusher at a good many of our agricultural warehouses, but could not procure one. I think if they were to import some, and have them made here, they would meet with a ready sale, as all who studied the health of their horses would use one. Gerald Howatt. *Newton, N. J.*

Experiments in Potato Culture.

Editors Co. Gent.—After one of the most extraordinary seasons on record, as concerns the soil and all proceedings connected therewith, we are at last approaching the confines of another year. The quantity of rain which has fallen this summer, has far exceeded the usual bounds not only in Rhode Island, but over most parts of the United States. And now the first crop to which we may pay a little consideration, is the potato. Really one approaches this question with a mixture of doubt and sorrow. The rot has made its appearance here in Cumberland county this summer, but on the whole I think has not done as much damage to the crop as was expected.

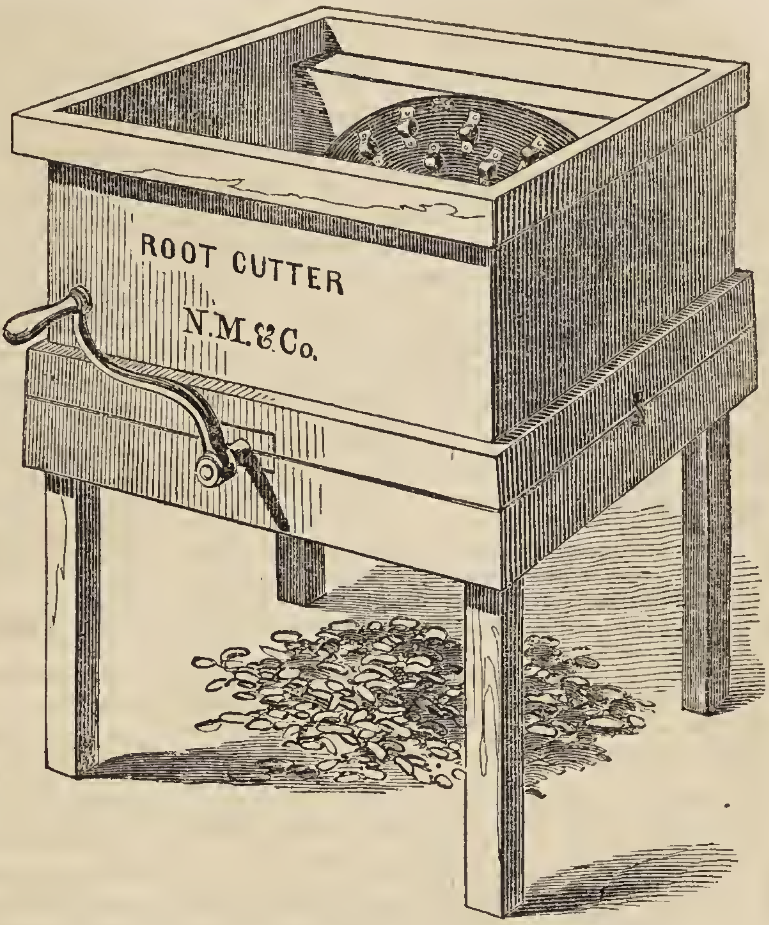
I propose now to give you an account of a few experiments that have been made in this village this season. Mr. George Dana plowed his land early in April, having first given it a good dressing with barn-yard manure—the seed, Canadian Reds, were planted 18 inches apart in the drills, the drills 30 inches apart—planted two eyes in a hill, and manured in the hill with plaster of paris and salt; the plaster and salt were not mixed, but applied separately some distance from each other. This crop was hoed three times—produce, 286 bushels per acre of as fine potatoes as ever grew out of doors. Kidneys, treated same as the above, an excellent crop; some of them measuring over six inches in length. Prince Alberts, treated as the rest of the crop, an excellent yield; some of them eight inches in length. I ought to say that they are all free from rot or disease.

Thomas Geldred's land plowed in April, without manuring—planted some Prince Albert potatoes in drills 32 inches apart and the sets 12 inches apart in the drills—planted two eyes in a hill, and manured in the hill with plaster, lime and salt; some, however, he manured with backhouse manure fresh from the privy. These were the handsomest of the lot—produce about the same as Mr. Dana's.

But the most astonishing of all, were some Dovers grown on a quarter of an acre of land belonging to Robt. Lees of this place, by John Paul. The land before plowing, received a good dressing of stable manure from horses fed with oats, hay, &c. The seed was planted in drills 36 inches apart, and the sets 18 inches apart in the drills—planted on the Howatt system, from some of the largest seed Mr. Paul could procure—produce 60 bushels, by far the greatest every known of this kind in this part of the State.

I had half an acre of land plowed in April, without

Willard's Patent Root-Cutter.



This cutter is a recent invention. It cuts vegetables very rapidly, and in slices thin and fine enough for sheep, lambs, or calves. It is very easily operated, so that a boy can turn the crank rapidly. The inside arrangement is such as to prevent all liability of clogging the cutter while working it, and the knives are easily repaired. The vegetables, after having been passed through the Cutter, may be mixed with straw, coarse hay, or other cheap forage which one would like to dispose of economically, and the mixture, after lying a little time, so that the forage may become impregnated with the juices and scent of the sliced roots, will be greedily and wholly consumed by the stock. Pumpkins are easily cut with this machine, so as to be conveniently and quickly cooked for swine. It is made by Nourse, Mason & Co., Quincy Hall, Boston—price, $10.

manuring, for potatoes—planted one-third of it with cut sets, two eyes in a hill, the hills 24 inches apart each way—manured with plaster in the hill—one-third planted with middling sized potatoes, manured with hen manure and plaster applied in the hill—the hill 30 inches apart each way. The remainder of the land was planted with large whole sized potatoes, 36 inches apart each way. This plot received no manure whatever. Each crop received four hoeings from my wife, she always attending to these matters, I being at work from home at the time. The cut sets were soiled up till they were five inches deep—the middling sized potatoes five and a half inches deep, and the large whole potatoes, after the last hoeing, were four inches deep. All the potatoes planted were Dovers. The potatoes were dug in September. The large whole potatoes, without manuring, produced by far the greatest yield. This I think was owing to the great distance apart from plant to plant, and their not being buried so deep as the other potatoes. P. Sidebotham. *Valley Falls, Rhode Island.*

The Dioscorea Batatas.

Messrs. Editors—"Cooper" is informed that the Dioscorea may be planted the first year in any moderately good soil; they will go down about six or eight inches; but the second year he ought to trench at least three feet in depth, and I doubt not they will go as far as he will, if he digs even deeper than that. I trenched something more than two feet for mine last spring, addding hog manure all the way down, and down went the "Batatas" until they struck a stone in the gravel below, and there of course they had to stop. The fact is not (as stated last season) that the same tuber grows from year to year, but the tuber planted decays the same as the common potato; but unlike the common potato, it does not yield more than five tubers for every four planted. This for the second year; perhaps they will do more the third. Last season mine were about three-fourths of an inch in diameter, and from eight to ten inches long; this year two and a half inches in diameter, and more than two feet long, and like the Texian corn that, besides several "rousing" ears along up the stalk, had a bladder on top with several quarts of shelled corn in it, so my Batatas had several dozen of small Batatas, not growing in the ground, as represented last season, but "high and dry" a foot or more above it.

These little tubers are the seed of the Dioscorea—the same as the "ball" to the common potato, and it takes two or three years to perfect tubers from one the same as the other.

I am not certain but they may be successfully crossed with Lima beans; and if so, I shall enter them for competition with those potatoes mentioned in the Gentleman some time since, that are "supposed to be crossed with the blood beet." I might spare a few of them (I mean the suppositious hybrids) to the respected editorial fraternity, but speculators couldn't have any of them.

My impression is that "millions will not be made" by the first cultivators of this "yam;" but they are very good, and will, I think, be cultivated to some extent; but they have first to "conquer a peace" for themselves, and the amount of conservative blood which we have inherited from our English ancestors, makes this no easy matter. I invest slightly in all novelties of this kind, and whatever may be said on the subject in hand, I suspend judgment until I have ocular testimony; and as I experiment, not from speculative motives, but to arrive at the truth, of course I am never disappointed.

In my farther experiments with the Dioscorea, I shall plant my small tubers three inches apart in drills; the next season plow deeply or trench, and plant a foot apart. As the long slim neck of the full grown tuber is worthless for cooking, I shall cut them off for seed, and I think they will be as good for that purpose as the whole tuber. Thus much for the present; but, good friends, it takes four years and a deal of patience to thoroughly test any new thing, whether a Batatas or a friend. E. Y. B. *Meriden.*

Inquiries and Answers.

Gas Lime.—Can you or some of your correspondents, tell me what effect lime used in gas works has upon crops, and how much should be applied per acre. I can get some 15 loads for the drawing three miles. *Will it pay?* What says S. W. J. on the subject? I will give it a trial, but would wish to hear first from those who have used it; or from one of the Professors of Chemical Agriculture, before I commence. How would it answer to spread it in the cattle and sheep yard, during winter? If applied directly to the corn or potato crop, how and when should it be applied?

We have had great rains since the 18th ult., and wheat has both root and top enough this season. John Johnston. *Near Geneva, N. Y.* [Our correspondent is referred to Co. Gent., vol. 7, p. 201, for an article on this subject from Prof. Johnson, and to pages 272, 304, and 314, same vol., for some experiments in its use. There is much difference of opinion as to its value, some deeming it actually injurious, and this we believe is the opinion of most of those who have used it in this county, as we are informed that our gas company offer it freely to any one who will cart it away, and at this rate seldom have calls for it. On the other hand, by reference to page 314, Co. Gent., vol. 7, it will be seen that one of our correspondents in New Jersey bought 2,400 bushels at 5 cents per bushel, carting it five miles, which he used to advantage. He applied it to grass lands in the fall, at the rate of about 30 bushels to the acre.]

☞ What is gained by having a winnower attached to a thrasher—and are they durable? Where, and by whom, are the best lever-power thrashers made. B. J. T. *Grundy Co., Tenn.* [The object of combining the winnower and thrasher in one machine, as we understand it, is that it thus accomplishes both operations in about the same space and time, and by the same power, that would be required by the thrasher alone. If properly constructed there is no waste of grain, as might result from rehandling it. The combined machine may be taken to the field with as little trouble as the thrasher only, and the grain is there bagged ready for market, and needs no further manipulation. As to the comparative cost, we presume the combined machines are generally more expensive than simple thrashers and separate fan-mills. As to their durability and the quality of the work they do, we shall be pleased to hear from those who have had experience There are three houses largely engaged in their manufacture in this city, either of which would be happy to send our correspondent descriptive circulars, on application. They are, Emery Brothers, Wheeler, Melick & Co., and R. H. Pease.

Wild Meadows.—Can you inform me of the best method for converting wild meadow land into good cultivated meadow? There are about 200 acres which I want to improve. A creek runs through the land which floods it at intervals. This I am trying to remedy by lowering the bed of the creek and drainage; but I am not certain as to the kind of seed to sow, nor the farther treatment of the land. The land is intended for a stock farm, and I want the meadow to produce good winter feed for the cattle. Jas. Waddell. *Brooklyn, N. Y.* [We are unable to advise our correspondent satisfactorily from a want of knowledge of the condition and soil of his "wild meadow." *Timothy* is best on *well drained* wet lands; *red-top* on those not quite so well drained. The surface must be first mellowed, either by the plow or harrow, if it can be done, and the grass seed harrowed or brushed in early in autumn or early in spring.

New Rochelle Blackberry.—Can you or some of your subscribers give me a little information in regard to the Lawton Blackberry? How is it propagated? I have some, but they don't multiply by suckers; they throw out branches close to the ground. Will these, by covering with soil, make roots or layers? John Parry. *Fort Edward, N. Y.* [Cutting down the *main stems* will cause them to throw up suckers, to be done early in spring. Nurserymen propagate them most rapidly by pieces of the roots, with bottom heat under glass—either in a hot-bed or propagating house. We lately saw a fine block of fifty thousand, large enough to set out, raised last winter and spring in this way, from the pruned roots of plants sold.]

☞ I have the first three numbers of the Register of Rural Affairs (paper covers.) Will you exchange with me for the bound volume, and what difference will you charge? [Several inquirers on this subject are informed that we cannot make the exchange proposed. The bound volume as now issued ("Rural Affairs") is published in much more expensive style as regards paper and presswork, so that the difference we could make, would be nearly or quite consumed by the extra postage to be paid on the copies sent back. The simplest way will perhaps be (if we may venture on the suggestion, to send us $1 for a copy of the new edition, and to put the numbers already received on missionary work, in the community, either by lending or giving them away.]

Fleas.—In answer to your correspondent on the topic Fleas, I may suggest a method of catching them, and when caught, he can adopt the Frenchman's mode of killing, or any other he may choose. Procure a pair of Rose blankets with long nap; substitute them for sheets to the bed; the legs of the fleas become entangled, and they are at your mercy. One who has tried it.

Inquiry.—I wish to inquire of you or some of your numerous readers, whether there is a remedy to prevent a horse from throwing his tail over the reins? I have a valuable mare, which has this disagreeable and dangerous habit, especially in warm weather. During "fly time," her tail is in constant motion, and if she chances to throw it over one or both of the reins, she hugs and holds it tight, and at once commences to *run*. She is very true and kind in every other respect If any one could tell me of a remedy, or what to do to prevent her from running, he would confer one of the greatest favors. B. E. H. *Prospect, Ct.*

Improved Cattle.—*H. H. A., Ridge Farm, Ill.* The questions you propose for discussion, in relation to the best breeds of cattle, mode of keeping, &c., have all been extensively treated of in this paper during the past two years, and a number of it seldom appears in which there is not something pertaining to these matters. We may say, however, that were we seeking for a supply of cattle for a farm in your locality, our first object would be to procure the number of cows we wanted by selecting the best we could find from among the number of grade and common stock to be found in the vicinity Next procure the services of a thoroughbred bull, either Short-Horn, Hereford or Devon, and we should have no fear of a failure in raising up a good herd from them.

Inquiries.—Can you inform me if there is a paper issued treating on making harness—also one on building wagons and sleighs. Also is there a book giving a thorough system on the culture of the tobacco plant? If there is, where can it be had, and the price? A Subscriber. [We know of no papers of the character specified, nor do we remember any book devoted solely to the culture of tobacco.]

Lopped Horns.—I have a very nice pair of yearling steers; the nigh one's horn is lopping down very badly. Can you or some of your experienced subscribers, tell me how to remedy it? I have heard that scraping the horn would remedy it, but do not know which side to scrape it on. A Subscriber. [A correspondent, in a former vol. of the Cultivator, says "that lopped horns may be raised by taking sharp glass, and scraping the horn on the under-side of the top, and for two or three inches from it. Scrape it thin, but not so as to cut through it, and then oil with sweet oil. Repeat the operation in three or four weeks, until the horn is raised as high as is desired. It will not fail, nor injure the horn."

UPRIGHT QUINCE.—Can you inform me if the Rochester Upright Quince has ever fruited in this country, and if it has, how it compares with the Orange Quince in quality, &c.? W. F. *Lake Co., Ill.* [We are unable to give the desired information.]

BIRD INQUIRY.—I have a beautiful gray Parrot—a great talker and highly prized, who has for months past, plucked its feathers as fast as they grew. If some of your readers could tell me how to cure him of this habit, they would greatly oblige. J. F. C. W. *Nebraska City.*

WARTS ON COWS.—W. A. H. asks a cure for warts on cows. Apply a few drops of nitric acid to the wart, two or three times. Use it carefully, and avoid putting it on the bag. I have always found it effectual. They are sometimes removed by tying a strong thread around them; but the acid is better. A SUBSCRIBER. *Jamaica Plains, Mass*

DRAINING.—Please tell me, did Messrs. Elwanger & Barry place the drain under the row of trees in their orchard, or between the rows? I have seen a notice of it in Country Gent, but cannot find it—probably before I became a subscriber. I want to plant an orchard. and before I do, I want to drain. Please tell me the best way. C. E. R. *Davenport, Iowa.* [We do not recollect the mode adopted in the case referred to, but we should much prefer placing underdrains mid-way between rows of trees, for two reasons—1st, if the trees stand directly over the drain, there will be danger of the roots running down and obstructing it when the trees become old, as has been found to be the case in some instances with tile drains. Secondly, it is the space *between* the rows, that we expect to cultivate for the benefit of the trees, most of the fine roots (those which require feeding) not being *in* the rows but between them; this work can be best done where drainage is most perfect.]

COLD GRAPERIES.—Will you or some of your subscribers have the kindness to reply to the following inquiries:

1. In glass graperies, are the vines planted with the main stem entirely within, or is the foot allowed to be out?
2. Are vines planted on *both sides* of the building?
3. How far apart are they planted?
4. After being in bearing, how are they pruned and trained? Do you leave long bearing branches (or canes) or short spurs?
5. When no artificial heat is given, are doors ever left open to give air, and are the glasses ever raised?
6. Are the leaves and fruit ever syringed? If so, when, how, and how often? Is the earth within the house ever watered? How often?
7. Are the vines manured every year? How, and with what compost?
8. Are any other plants allowed to grow within the house?
9. Are the sashes to be left on during winter?—at the south?
10. Which are the best grapes for that particular culture—of course of the European?

If one or several of your correspondents would answer to the above queries, and give any other suggestions they might think of, they would confer a great service. A SUBSCRIBER. *Woodward, S. C.* [We shall be pleased to hear from any of our readers in answer to the above inquiries. In the meantime we refer our correspondent to pages 254 and 302, current vol. of this paper, where he will find answers to several of his queries.]

SUGAR FROM SWEET CORN AND APPLES.—Where can I obtain some of the sweetest kind of sweet corn, that will yield the greatest quantity of sugar from the juice of the stalk? [We have found the stalk of the Chinese sugar cane to furnish a much greater quantity of saccharine matter than that of any variety of sweet corn, and would recommend it as best for this purpose.] I have heard of a kind of very sweet apples, whose cider or juice would make good molasses with little boiling. Where can the scions of such kind be obtained for grafting? JOHN MIX. *Waterbury, Ct.* [Probably the Tallman Sweeting is equal to any variety for this purpose—many other sweet apples are nearly as good. Boiling down *sweet cider* is a poor way of making apple molasses, and furnishes a poor article. It is far better to steam the apples soft, and then press out the juice and boil it.]

GAS LIME.—In your reply to JOHN JOHNSTON'S inquiries, I notice that you refer indirectly to a former communication of mine in vol. 7, page 314 of Co. Gent., in regard to the use of gas lime, and it may now be a suitable time to correct an error that occurred at that time in the figures. The lime was applied at the rate of about *eighty* bushels per acre, not thirty, as it was printed. Having a field of about twelve acres to lime this season, I inquired of a lime dealer in our town, with a view of getting gas lime. He had none at the time on hand, and finding that it would cost me so nearly the same as the best Schuylkill, I concluded to substitute the latter. My own opinion is, that there is no better lime for the land than the pure oyster shell. As it acts quicker than other lime, its effects are not thought to be quite so lasting, and it may be applied in rather a larger quantity. The chemical change which this lime undergoes in purifying the gas at the *Philadelphia gas works*, I am unable to state. It cannot, however, be one rendering it injurious to the land, or the farmers in the vicinity and on both sides of the Delaware, would not be so disposed to monopolize its use as they now are; and were *it* offered *freely for the carting*, I rather think some of the *soil* would be likely to go with it. Of the lime from other and distant gas works, of course I know nothing. C. *Near Salem, N J.*

POLL EVIL.—*N. S R, Gratiot, Mich.* For all the information we can give you on this subject, see answer to another correspondent in the Co. Gent. of Oct., 8, p. 236, or Cultivator for November, p. 342.

TO PREVENT HORSES THROWING THEIR TAILS OVER THE REINS.—In answer to B. E. H., in the Co. Gent. of Oct. 29, with regard to a horse throwing his tail over the reins, the remedy is to nick and dock. If well done, there will be no more trouble in that particular. I had the same thing to overcome in a mare of my own. A LOVER OF THE CO. GENT.

INQUIRY.—I have a colt, (2 years old,) which has upon its head, midway between the eye and nostril, a hard callous swelling. It has been there about four weeks; and within a few days past, a similar swelling appears under the other eye. The larger bunch is about the size of a man's hand, and is not much sore. What reader of the Country Gentleman can tell me the cause and the cure? Such information will be thankfully received. E. M. GUFFIN. *Iowa.*

* * *

GRAPES.—Our annual basket of Catawba and Isabella Grapes, from our friend DR. UNDERHILL of the Croton Point Vineyards, has come to hand, for which he will please accept our hearty thanks. They were well ripened, and we think of larger size than usual.

Notes for the Month.

Receipts at the New-York State Fairs.—We annex a list of the receipts at our State Fairs, from 1845 to the present year. Previous to 1853, the charge for admission was 12 1-2 cents. At the Fair of 1853 at Saratoga, the admission fee was raised to 25 cents, at which it has been kept to the present time. We add an estimate of the numbers present at each Fair, giving eight to a dollar when the admission was 12 1-2 cents, and at the rate of four to a dollar when the admission was 25 cents, and adding 3,000 for extra tickets to members:

Year.	Placc.	Receipts.	Attendanec.
1845	Utica.	$4,370.18	34,962
1846	Auburn,	4,333.17	34,666
1847	Saratoga,	4,034.22	32,274
1848	Buffalo.	6,272.86	50,183
1849	Syracuse.	8,144,55	65.157
1850	Albany.	10,465.61	85,725
1851	Rochester.	11,954.25	95,634
1852	Utiea.	8,125.41	65.005
1853	Saratoga.	6,009.00	27.036
1854	New-York.	9,248.70	39,996
1855	Elmira.	11,527.25	48,008
1856	Watertown.	8,010.00	35,040
1857	Buffalo.	Between 16 and 17,000.	70,000

Winslow's Grape.—This new variety is described by Dr. Kirtland of Cleveland, in a late number of the Ohio Farmer. He states that it is two weeks earlier than the Diana and Clinton; and from the figure given, its size must be about that of those two varieties. It is black; the bunches are rather small; the growth is small and compact; and the vine quite hardy. We infer that the flavor is not first-rate, although it is said to be better than the Clinton. Its extreme earliness may possibly render it valuable. It is said to have originated at Cleveland.

The Hop Tree.—We notice recently some inquiries in relation to the tree known by this name. We have since been informed that it is the *Ptelea trifoliata*—a small tree which we have known and cultivated for twenty years, but without a knowledge of the value of its seed-vessels as hops. The name "hop tree" is a new name—it is commonly called the "shrubby Trefoil." A glance at its leaf or seeds would enable any one who has seen it to recognize it at once. It is wholly distinct from the Hop-hornbeam or Iron-wood, and is nearly allied to, or belongs to the same natural order as the Prickly Ash and Ailanthus. It is a native of the middle and southern States, and was introduced into cultivation in England 150 years ago, where some old specimens are now more than forty feet high. The seed is contained in flattened winged capsules, somewhat resembling those of the *elm*, whence the French name "*orme*," or "*orme de samarie*."

Importation of Llamas.—The Llamas, soon to arrive in New-York, are said to be from the mountains of Peru and Eucador, where there is much snow, and where "they are found in large numbers, and as they are thus accustomed to cold weather, it is believed they are well adapted to the climate of this country, particularly that of our Northern latitudes. They are very hardy, vigorous animals, capable of bearing much fatigue, and of being sustained with comparatively little food. Those expected here are of the description from which the alapaca wool is obtained"

Sheep Shearing.—Gen. John S. Goe, an extensvie breeder of improved stock, of Fayette Co., Pa., has an annual sheep-shearing at his farm, in June of each year. At the last, the report of which has just come to hand, 23 French Merino bucks were sheared—five were sheared unwashed whose fleeces averagod 16 lbs. 2 oz. each—the fleeces of the 18 washed averaged $8\frac{1}{3}$ lbs. each. Of 32 Spanish Merino bucks, the fleece of one sheared unwashed weighed 15 lbs, 2 oz., and the fleeces of the 31 washed averaged 4 lbs. 14 oz each. The committee, under whose superintendence the sheep were sheared and the wool weighed, speak in high terms of Gen. Goe's Short-Horn cattle, Suffolk and Essex swine, &c.

Large Prizes.—The Board of Commissioners who have charge of the improvement of the Central Park in New-York, offer the following sums for the four designs for laying out the grounds of the Central Park, which may be chosen by the Board:

For the first,	$2,000
For the second,	1,000
For the third,	750
For the fourth,	500

The designs to be furnished by the first of March next.

☞ Mr. J. F C. Hyde, Newton Center, Mass. sends us a sample of paper made from the "begasse," or waste of the stalk of the Chinese Sugar Cane from which the juice has been expressed. It is a good strong wrapping paper, but not smooth enough for "post-office paper."

Tartar Sheep.—Three of these sheep—a ram and two ewes—passed through this city last week on their way to H. G. Otis, Esq. of Geneva, who recently purchased them in New-York. They are celebrated for the quality of their mutton, and for their productiveness. The tail of this sheep is said to afford the choicest treat a Tartar can put before his guest. One of these ewes has produced five lambs the past season; and a ewe of this breed was exhibited at the U. S. Exhibition in Philadelphia in 1856, with a progeny numbering seven in nine months—from Feb. to Nov.—two lambs in the former month, and three in the latter, while each of the first lambs also dropped a lamb the same month—all living, and in every respect healthy and strong.

Chinese Sugar Cane.—In all the recent discussions on the value of the Sorghum, one essential point seems to have been overlooked—and this is the *cost*. All appear now to agree that large quantities of molasses may be obtained from an acre of the stalks, the highest and most of the estimates being 200 to 300 gallons per acre, and the lowest and a few about half this amount. We do not think the precise amount per acre involves the main question—the cost of manufacture We are satisfied from our own experiments that an acre of the cane may be raised at a cost not exceeding the value of the stalks as fodder, after they have been through the pressing mill. The juice may therefore be obtained as cheaply as the sap from the maple, the cost of pressing out by the best horse-machinery not exceeding the labor of tapping and gathering sap, and the cost of sap-tubs.

Now, if we are correctly informed, the sap of the maple requires boiling down to one-twelfth or one-fifteenth to form molasses. The juice of tho Sorghum, in the experiments in the central portions of this state, requires reducing only to about one-fourth or one-fifth —or only one-third the reduction of tho maple sap. The manufacture of the latter can be profitably carried on only whore fuel is quite cheap—and the most important consideration connected with the manufacture of molasses from the cane, is the reduced amount of labor and fuel needed on account of its greater richness over tho maple. If nine-tenths of the cost of manufacture of maple molasses is fuel and labor of evaporation, then the Cane syrup may be made at less than one-half the expense of that from maple sap.

These estimates may not be accurate—we do not offer them as such; but merely as a guide to determine the great vital question—that of the cost of production.

☞ The Journal of the N. Y. S. Ag. Society for Nov., contains a full list of all the prizes awarded at the late State Fair at Buffalo.

Hon. A. B. Conger's Stock Catalogue, which has been accidentally overlooked for several weeks, includes a large variety of superior cattle, as well as sheep and swine. The Ayrshires come first, including 8 head of cows and heifers, two of them imported, and the imported bull "Marmion 2d," also 5 other bulls and bull calves The North Devons number 14 cows and heifers, and 7 bulls and bull calves, all carefully bred from the best sources. There are 20 head of Short Horns, 3 of them bulls and bull calves, and embracing animals from such breeders as the Bathgates of Fordham, Lorillard Spencer, Paoli Lathrop, Edgar Sprague of Smithtown, Long Island, and others, beside a number of Mr. C's own breeding. Several head of South Downs, and of Essex and Suffolk pigs, from imported stock, are offered for sale—also 3 heifer calves—a cross between the Short Horn and Ayrshire breeds. B. Fletcher, jr., head farmer and herdsman, Haverstraw, N. Y., should be addressed for further information.

The Large Trees in California —A party of gentlemen, of whom the editor of the California Farmer was one, recently visited Yosemity Valley on an exploring expedition. One object was to ascertain the measurement of some of the enormous pine trees to be found in that valley. The California Farmer furnishes the following measurements by the two parties into which the company was divided. Some of the trees are said to have been 300 feet high, and several of them 225 to 250 feet:

Number of trees.	Circumferance in feet.	Number of trees.	Circumference in feet.
1 tree	102	1 tree	53
1 tree	97	1 tree	51
1 tree	92	4 trees each	50
3 trees each	76	6 trees each	49
1 tree	72	5 trees each	48
3 trees each	70	2 trees each	47
1 tree	68	3 trees each	46
1 tree	66	2 trees each	45
1 tree	63	1 tree	44
3 trees each	62	2 trees each	43
2 trees each	60	2 trees each	42
1 tree	59	1 tree	40
1 tree	58	1 tree	35
3 trees each	57	2 trees each	36
1 tree	56	2 trees each	32
3 trees each	55	1 tree	28
2 trees each	54		

The aim was to see if we could not find one hundred trees over fifty feet in circumference; which was more than accomplished by both parties, as will be seen. Our party measured as follows (none less than forty feet:)

Number of trees.	Circumference in fee	Number of trees.	Circumference in feet.
2 trees each	100	2 trees each	59
1 tree	82	1 each from	58
1 tree	80	down to	52
2 trees each	77	2 trees each	51
1 tree	76	6 trees each	50
3 trees each	75	1 tree	49
1 tree	72	1 tree	47
2 trees each	69	1 tree	46
3 trees each	67	2 trees each	45
1 tree	64	1 tree	43
4 trees each	65	7 trees each	44
2 trees each	63	4 trees each	42
1 tree	61	3 trees each	41
10 trees each	60	8 trees each	40

Some of these were in groups of three, four and even five, seeming to spring from the seeds of one cone.

The Kyloe Cattle.—We notice in a late number of the *Mark Lane Express*, a contribution in relation to this breed of cattle, natives of the Hebrides and other North British islands, and thought to possess some characteristics rendering them worthy of more careful breeding and general attention than they have yet received.

We remember having seen one or two samples of Kyloe cattle, owned at Ashland, near Lexington, Ky., by James B. Clay, Esq., who purposed, we believe, making some experiments in crossing them with Short-Horns, and perhaps, also, in breeding them separately. The results might be of interest to the Agricultural community. The polled Galloways and the Kyloes "fetch at an average 6*d* sterling per Smithfield stone over any fattened animals in the United Kingdom."

Combined Plow.—I have a plow which has taken the premium for the two last years at our fair, which for convenience and economy, surpasses any plow I have yet seen. It is called the "Wrought Iron Plow," and was invented at the south. It costs about $20, complete, according to size. For one horse—the weight of the brace or frame is 40 to 44 lbs. Twenty different bitts or shares are made to work on the brace, simply by bolting on the end of the handles of the brace. It can be made to embrace most any kind of plow, the brace not be laid aside for any plowing, and is not subject to wear in the least. I have worked them for two years, and they are as good as ever. The bitts are only to repair when worn out.' Joel Williams. *Cumberland Co, N. C.*

The N. E. Farmer has a notice of a plow, constructed on a plan similar to the above, which was exhibited at the late Boston Fair: "In the collection of Nourse, Mason & Co., we also saw the *Universal Plow* devised by Mr. Holbrook of Battleboro', Vt.; it has but one beam and *twelve* mould boards, calculated to suit all soils and places. This plow contains a combination of happy thoughts, and we think will be generally adopted. Some further experiments are about to be made with it, the results of which we shall lay before our readers."

Bermuda Grass.—I send you a specimen of our best pasture and yard grass, called here "Bermuda grass." (If you plant it in a box, and keep it from the frost, it may perhaps grow.) It is the only grass that will stand the severe droughts, except the Muskeet grass, to which it is very similar. (I had a sample of the running Muskeet and lost it.) It forms the finest and thickest grass for door-yards, and for grazing can be pastured very closely. It will make the best kind of hay. Horses will select it out from any other kinds grown here. I have never seen any of this grass in the North, that I can remember. Jno. W. Fraley. *Bonham, Texas, Oct.* 19.

P. S I will send you some buds and cuttings of some of our best native wild grapes shortly.

Product of One Pea.—J. S. E informs us that having found a pea which had come up in a hill of corn, he put a bush for it to run on, and at maturity he found it produced 52 pods and 309 peas.

Large Calf.—Mr. D. F. Tillotson, of this place, has raised a calf that was fourteen months old on the 17th day of August, and was weighed the 20th day of August. Weight 1,270 lbs. N. C. C. *Orfordville, N. H.*

Correction.—On page 204 of the Co. Gent. of Sept. 24, and page 335 of the Nov. Cultivator, there is a remedy for Sweney by C. D. Gray. Now there is a mistake about the matter somewhere; the name is O. D. Gray, and the medicine is for ring-bone, and not for sweney. O. D. Gray. *Castle Creek, N. Y.*

Hungarian Grass.—Much has been said in the western papers, for some time past, in relation to a new kind of grass, which has been cultivated in Iowa for a year or two past, under the name of "Hungarian grass," which proves to be the genuine German or Hungarian millet

Life Illustrated.—This spirited Pictorial weekly Family journal commenced its 5th vol. on the 31st Oct. Published by Fowler & Wells, New-York — $2 a year.

Dr. E. Holmes, Editor of the Maine Farmer, has been chosen President of the Maine Pomological Society.

PROSPECTUS FOR 1858.

THE SATURDAY EVENING POST.

ESTABLISHED AUGUST 4, 1821.

THE PAPER THAT NEVER SUSPENDS.

A Family Weekly—Devoted to Literature and the News.

IN THESE times of Bank suspensions and Mercantile suspensions, the proprietors of the SATURDAY EVENING POST call the attention of the reading public to their old and firmly-established weekly paper, as the paper that never suspends. For over

THIRTY-SIX YEARS,

THE POST has been published; and in all that period—through "good times" and through "bad times," through bank inflations and bank contractions, through prosperous seasons and through panics, THE POST has been regularly issued every week, and forwarded to its thousands of subscribers. Its proprietors therefore point to the past as an unfailing index of the future. And they feel that in asking of the reading public a continuance of the patronage heretofore so liberally bestowed upon THE POST, they are asking no more than what it will be both the interest and the pleasure of that public to grant.

Among the contributors to THE POST, we may mention the following gifted writers: WILLIAM HOWITT, ALICE CARY, T. S. ARTHUR, GRACE GREENWOOD, ANNA BLACKWELL, AUGUSTINE DUGANNE, MRS. M. A. DENISON, EMMA ALICE BROWNE, The Author of '**An Extra-Judicial Statement**," The Author of "**Zillah, the Child Medium**," &c., &c., &c.

We design commencing in the first paper of January, an original

NOVELET, BY T. S. ARTHUR.

Mr. Arthur's productions are so widely known, that we need hardly say that the tone of the present Novelet will be entirely consistent with the moral and instructive character which we have always striven to impress upon THE POST. Readers who wish to peruse the FLASH STORIES which abound in the land—pernicious and destructive in their tendency and effects—can find them, we regret to say, at every corner. But THE POST will still maintain its high character, as a paper which the most scrupulous parent may allow freely to enter

THE FAMILY CIRCLE;

And which will purify and instruct, instead of demoralizing and corrupting, the youthful mind. Especially will its conductors avoid, in the publication of the weekly news, all those long and disgusting reports—unfortunately now so common—of

VILE CRIMINAL CASES;

Believing, as they do, that the practice of publishing the details of such loathsome cases, and of the criminal trials resulting therefrom, is a fruitful cause of the recent alarming increase of vice and crime in the community. Like begets like—and what the mind feeds upon, that it will grow to resemble.

CHOICE SELECTIONS

of all kinds, from the BEST FOREIGN AND DOMESTIC SOURCES, shall continue to be, as heretofore, a leading feature of THE POST. The Stories, Essays, Sketches, Agricultural and Scientific Facts, &c., &c., obtained in this way for the readers of THE POST, are among the most instructive as well as interesting portion of its contents.

THE VERY CREAM

of the PERIODICAL LITERATURE of the BRITISH ISLES is thus given to our readers. THE POST, weekly, has

SOMETHING FOR ALL

the members of the family, NOVELETS, ESSAYS, STORIES, ENGRAVINGS, AGRICULTURAL ARTICLES, THE NEWS, SKETCHES, POETRY, ANECDOTES, RIDDLES, THE WHOLESALE AND RETAIL MARKETS, BANK NOTE LIST, &c., &c., &c.

Finally, we may mention three good reasons why the reading public should give the preference to THE POST:—

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It is Cheaper than Any other Paper of Equal Merit.

It will be Certain to Come when Paid for.

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THIRTEEN COPIES, (and one to the getter-up of the Club,)	15.00 "
TWENTY COPIES, (and one to the getter-up of the Club,)	20.00 "

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No. 132 SOUTH THIRD STREET, PHILADELPHIA.

☞ SAMPLE NUMBERS SENT GRATIS TO ANY ONE, WHEN REQUESTED. ☜

☞ TO EDITORS.—Editors who give the above one insertion, or condense the material portions of it for their EDITORIAL columns, shall be ENTITLED to an exchange, by sending us a marked copy of the paper containing the advertisement or notice.

Dec. 1—w1tm1t

Lawton Blackberry Plants.

Scale of Prices by the Dozen.

A PACKAGE of one dozen,		$3
do.	two dozen,	5
do.	five dozen,	10
do.	eight dozen,	15
do.	twelve dozen,	20

The name and direction of the purchasers should be distinctly written, and the money accompany the order.

Address to WILLIAM LAWTON,
Oct. 1—w4tm2t. 54 Wall-Street, New-York.

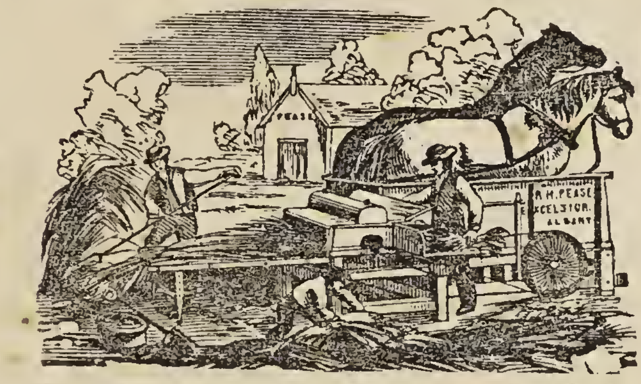
Important to the Farmer and Butcher.

FOR SALE by the subscriber, two Thorough-bred LEICESTER RAMS, one year old, bred from Ewes imported by Brodie & Hungerford. Also fifty Thorough-bred SPANISH MERINO LAMBS, bred from Bucks bought of Stephen Atwood of Conn. Also one hundred MERINO WETHERS, fit for the butcher, or a fine lot to stall feed; they are large. Also Thorough-bred SUFFOLK PIGS. I will sell a colt, now five months old, got by the thorough-bred horse Consternation, from one of the best mares in this county—all of which will be sold at prices to make it an object for farmers to purchase.

Any information in relation to the stock, will be cheerfully given by addressing the subscriber at Otisco, Onondaga Co., N. Y. N. H. NOYES,
Nov. 5—w4tm1t. Otisco, Oct. 26th.

Berkshire Pigs for Sale!

WARRANTED of pure breed, and at a low figure.
WILLIAM J. PETTEE,
June 11—w&mtf Lakevill, eConn.



Excelsior Ag. Works, Albany, N.Y.

RICH'D H. PEASE, Proprietor.

WE OFFER the farmers and other responsible persons of this country, a rare chance to make money as fast as they can in most any other way, by selling our Celebrated Excelsior Patent Railway Endless Horse Powers, Threshers, Cider Mills, Saw Mills, &c., &c., for which we will allow them a liberal commission. Last season many farmers sold these machines for us, and they all made money, and are anxious to sell them again this season. All communications addressed to the subscriber will be promptly answered. RICH'D H. PEASE.

CERTIFICATES.

Bedford Co. Tenn. Oct. 15, 1856.

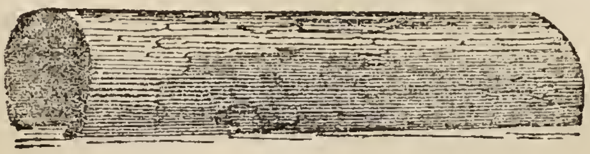
We the undersigned hereby certify that we have purchased of the Agent of the Manufacturer, Richard H. Pease of Albany, New-York, his "Excelsior Horse Power and Thresher," and having used them a sufficient length of time to convince us of their utility and durability, feel no hesitancy in saying that in our opinion they are the very best of which we have any knowledge, they having performed to our entire satisfaction. Given under our hand, day and date above.

Garret Phillips,
M. L. Dismukes,
Thos. Lipscomb,
Wm. A. Allen,
J. T. Arnold,
W. W. Hastings,
James Mullins.
Benj. Garrett,
Alex. Sanders.
Wm. M. Goggin,
Alex. Eakin,
Redding George,
J. J. Koonce,
W. C. J. Brown,
H. D. Davidson.

East Greenwich, N. Y., Feb. 25, 1857

Mr. R. H. Pease—I received the Two Horse Power, Thresher and Separator I purchased of you, and put it to work to test it. I have threshed 2,500 bushels of wheat, oats and rye with them, without a break of any kind. It works to my entire satisfaction, and I think there is no better machine made. Wm. McNeil.

May 14—w&mtf.



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Corner of Patroon and Knox Streets, Albany, N. Y.

THE subscribers, being the most extensive manufacturers of Draining Tile in the United States, have on hand, in large or small quantities for Land Draining, the following descriptions, warranted superior to any made in this country, hard burned. On orders for 10,000 or more, a small disconnt will be made.

HORSE-SHOE TILE CUT 14 INCHES LONG—PIECES.

2½	inches	rise,	$12 per 1000
3½	"	"	15 "
4½	"	"	18
5½	"	"	40 '
6½	"	"	60 '
8	"	"	80 "

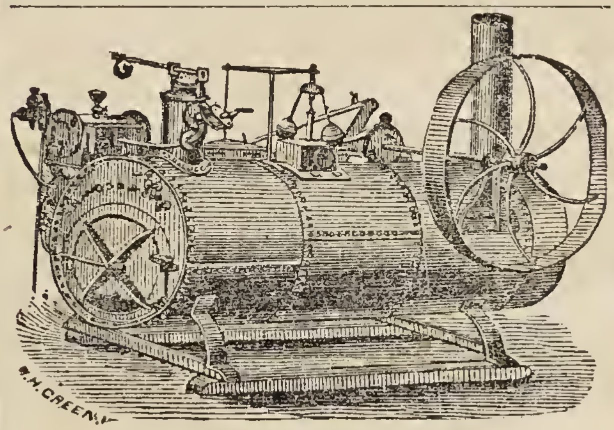
SOLE TILE CUT 14 INCHES LONG—PIECES.

2	inches	rise,	$12 per 1000
3	"	"	18 "
4	"	"	40 "
5	"	"	60 "
6	"	"	80 "

Also on hand 6-inch calibre Octagon pipe, $20 per 100, and 8-inch calibre Round pipe, $30 per 100, for large drains—Cornice Brick, of the pattern used in the City of Washington, also on hand.

Orders respectfully solicited. Cartage free.

C. & W. M'CAMMON,
Albany, N. Y.
RICHD. H. PEASE, Agent,
Excelsior Ag. Works, Warehouse and Seed Store,
March 1—w&mtf 359 & 371 Broadway, Albany, N. Y.



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Corner of Rome and Cornelia Streets, Utica, N. Y., (formerly Eaton, N. Y.)

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For Farm and Mechanical Purposes.

WE HAVE made great improvements in our Engines the past winter, particularly in the manner of setting the tubes in the boilers, (by Prosser's Patent) adding a large wrought-iron dome in place of small cast ones, increased the size of fire-box, with ash-pan that can be closed up tight or opened at pleasure,—also in the manner of connecting the governor to throttle, making it direct action.

Parties wishing Circulars with cuts of Engine, should enclose P. O. Stamp to pay return postage on same. The following is our

PRICE LIST FOR 1857.

Horse power	estimate weight	space occupied	cash price	fly-wheel diameter	face of wheel
2½	2000 lb.	4 by 5 ft.	$240	39 in.	5½ in.
3	2200 "	5 by 5 "	290	39 "	5½ "
4	2500 "	7 by 5 "	355	40 "	6 "
6	3600 "	7 by 5 "	550	44 "	7 "
8	4800 "	9 by 6½ "	700	48 "	8 "
10	6000 "	10 by 6½ "	875	60 "	8 "
12	7500 "	14 by 6½ "	1050	72 "	12 "

The above price includes boxing and delivered on board cars. A. N. WOOD & CO.

April 23—wtf—June 1—mft.

Contents of this Number.

THE FARM.

Agricultural Statistics of New York, 363
Chinese Sugar Cane, by R. J. WILCOX, 364
Portable Steam Saw, &c., by R. M. CONKLIN, 365
Sugar Cane for Milch Cows, by C. T. H., 365
Lime in Composts, 365
Chinese Sugar Cane, 366
Use of Salt in Potato Culture, by J. C. CLEVELAND, 367
On Cutting Hay for Stock, by A WORKING FARMER, 369
The Chufas, by D. J. BROWNE, 369
Culture of the Onion, by A SUBSCRIBER, 370
Preparations for Winter, 370
Letter from Canada, by W. O. BUEL, 371
How to Store Roots, 371
Preparation of Feed for Stock, by WM. WINSPEAR, 375
Cutting Hay, &c., for Stock, by GERALD HOWATT, 376
Experiments in Potato Culture, by P. SIDEBOTHAM, 376
Willard's Patent Root Cutter, 377
The Dioscorea Batatas, by E. Y. B., 377
Inquiries and Answers, 378
Notes for the Month, 380

THE GRAZIER:

Winter Feed for Milch Cows, by H. H., 362
Suffolk Pigs, by G. F. CONKLIN, 366
Large Ox Team, 366
On Cutting Hay, Straw, &c., 363, 375, 376
Protection from Bloody Murrain, by J. WADSWORTH, 370
Gapes in Young Turkies, 370
An Albany Horse, 372

THE HORTICULTURIST.

Cost and Profit of a Half-acre Garden, 362
Grafting the Grape, 366
Injury to Apple Trees by the Winter, by J. WATERS, 366
Planting Peach Pits, by A SUBSCRIBER, 366
Winter-Mulching Fruit Trees, by V. ALDRICH, 369
The Ontario Pear, 372
Renovating an Old Pear Tree, 372
Des Nonnes Pear and Fulton Plum, 373
The Calceolaria, 374
New American Grapes, by T. M. HARVEY, 374

THE HOUSEWIFE.

Corn Husks for Under Beds, 366
To Drive away Rats, 371
How to Make Lard Candles, by J. A. ROBINSON, 372
Cider Champagne Wine, by A. CHAVANNESS, 373
To Keep Cider Sweet, by J. W. L., 373
Good Tallow Candles, by J. B., 374
Preparation of Tripe, by C. T. ALVORD, 375

ILLUSTRATIONS.

Ontario Pear, 372
Diagram of Pear Roots 372
Des Nonnes Pear, 373
Fulon Plum, 373
The Calceolaria, 374
Root Cutter, 377

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